



## Inside Dope

By George F. Taubeneck

**Research Corp. Offers \$2,500,000  
For Postwar Collegiate Research  
Grants Begin Soon**  
**Scientists for Next Generation  
Return to Peace-Time Footing  
Grants Made from  
Patent Revenues**

**Research Corp. Offers  
\$2,500,000 for Postwar  
Collegiate Research**

Scientists who made the atomic bomb, radar, and a host of other vital war weapons will have a chance to return promptly to college laboratories for scientific research and teaching through \$2,500,000 in grants offered to educational institutions by Research Corp. of New York, a non-profit organization devoted to advancing research and technology by use of revenues from inventions assigned to it by public-spirited inventors.

Preference in making these grants will be given, other factors being equal, to smaller institutions and those of more limited financial resources for research.

The five-year program announced by Dr. Joseph W. Barker, acting president, who has returned to his duties with the corporation and with Columbia University from service as Special Assistant to the Secretary of the Navy, will result in 100 to 200 grants of \$2,500 to \$5,000 each year in order that talented young scientists, engaged for the most part in war research in uniform or as civilians, will be able to undertake at universities and colleges research of peace-time importance in pure science, especially chemistry, physics, mathematics, and engineering.

### Grants Begin Soon

The first grants will be made in a few weeks by a special committee of eminent scientists from industrial and university laboratories. The committee is composed of Acting President Barker, who is also Dean of Engineering at Columbia University; Dr. Thomas H. Chilton, director of engineering for duPont; Dr. William D. Coolidge, X-ray consultant for General Electric Co.; Timothy E. Shea, manufacturing engineer of Western Electric Co.; Dr. Lloyd P. Smith, associate research director of Radio Corp. of America; Col. Stafford L. Warren, Professor of Medicine at the University of Rochester; and Dr. Robert R. Williams, inventor of the synthesis of vitamin B<sub>1</sub> and coordinator of research of Research Corp.

Grants will be made to the institutions at which the scientists will work and teach. The funds allotted will be available for the purchase of needed equipment and for employment of assistants either as Fellows or otherwise. Awards will be based primarily upon the demonstrated ability of the men who will conduct the researches and contribute to the teaching program of the school.

### Scientists for Next Generation

"For the past four or five years," writes Dr. Barker, "the Government, through the Office of Scientific Research and Development, the National Defense Research Council, the Army, the Navy, and the Air Force, has supported a vast research and development program into which has been drawn the great majority of the most competent university research men."

"Already the demobilization of these research projects is under way. (Concluded on Page 7, Column 1)

## Chicago Marts Appliance Setup To Set Record

CHICAGO — Attendance at Chicago's first peacetime national home furnishings show in four years, scheduled to open January 7 at the Merchandise Mart and the American Furniture Mart, is expected to exceed that of all previous shows, according to J. N. Stewart and Clark Kelsey, publicity managers for the respective marts.

The lack of hotel accommodations will be the only major handicap, Mr. Stewart estimated. Those men who have registered for attendance have been asked to plan, wherever possible, to stay with friends or relatives, for most of the city's hotels have been booked solid since early November.

Household appliance exhibits will, in light of the anticipated huge crowds, be more extensive than ever before, reservations show. Before the war only the fifth floor at the Furniture Mart was taken up by appliances, Mr. Kelsey recalled. Both the fifth and seventeenth will be occupied this time, he said. All manufacturers of major appliances except Hotpoint will be represented there.

Floors at the Merchandise Mart are assigned according to the industry represented, and there all major and minor appliances will be exhibited on the fourteenth floor, according to Mr. Stewart. Such manufacturers as Edison General Electric, Landers Frary & Clark, McGraw Electric, and Knapp-Monarch will be there.

Most merchandise will be allocated on an allotment basis, since reconversion in the home furnishings industry must continue to be slow for some months to come, he said. Thus the informative aspect will be stressed in the exhibits, with display ideas for dealers and suggestions for remodeling given major accent.

## Honest Distribution Committee Formed

NEW YORK CITY — Paul Wolk, president of Blackford Brothers Co., of Rochester and Buffalo, distributor of radios and electrical appliances, has announced the formation of an "Honest Distribution Committee" pledged to "get rid of the plague of unfair distribution practices which could easily develop into a merchandising problem worse than the wartime black market."

The committee's long-range plan, as disclosed here by Mr. Wolk, will be to encourage distributors of all lines of merchandise to join in "fighting and eradicating 'backdoor selling' wholesale distribution methods which threaten to undermine the reputation of ethical distributors and dealers."

Listed among the trade evils which the group will combat were special discounts by "certain" dealers and distributors to "friends" and employees. The practices of special discount houses and what was termed a growing trend of certain factories "to indulge in unfair practices (Concluded on Back Page, Column 5)

### WHY WE'RE LATE

Because of delays incurred in moving during the holiday season, this issue of AIR CONDITIONING & REFRIGERATION NEWS will be late in reaching subscribers.

With the new weekly schedule, it is believed that future issues will reach subscribers more promptly.

## We Have Moved to 450 W. Fort St. Detroit 26, Mich.

**Please change your records accordingly!**

Because of the difficulties and confusion entailed in moving our offices and printing plant to our new location, this issue of the News has been limited to 16 pages.

With the first issue in January we shall resume the publication of regular, full-sized issues every week. Subscribers, we hope, will enjoy this expanded service. Twice as much for your money!

## Westinghouse Backs Distributor Setup

MANSFIELD, Ohio—"Firmly convinced" that the manufacturer-distributor-dealer method of distributing goods is "fundamentally sound," Westinghouse Electric Corp. will stand back of that method of distribution, distributor executives and 450 wholesale salesmen were assured by J. H. Ashbaugh, Westinghouse vice president in charge of the appliance division, at sales meetings here recently.

Commenting on reconversion, Mr. Ashbaugh said, "If we can continue on schedule, we will be up to prewar refrigerator capacity in seven months after the end of the war, which is one month better than the time table we set up for this task."

"Electric irons, vacuum sweepers, fans, electric roasters, and a few other appliances were started more quickly, while ranges, laundry equipment, and some other small appliances have taken much longer."

A five-year warranty plan for the Westinghouse Laundromat automatic washer was discussed at the meetings by I. Frank Brownson, manager of the laundry equipment department.

This warranty guarantees replacement of the sealed-in, transmission, at no cost, within a period of five years after date of manufacture of the unit if the transmission becomes defective, declared Mr. Brownson.

Products shown at the meeting in their 1946 styling included refrigerators, home and farm freezers, electric ranges, water heaters, automatic washers and clothes dryers, irons, dishwashers, roasters, fans, vacuum cleaners, tank type cleaners, garbage disposers, and milk coolers.

## Court Case to Test Fair Trade Act

SALEM, Ore.—A test case involving Oregon's 1935 fair trade act, authorizing resale minimum price contracts between manufacturers and dealers, was filed in Circuit Court here recently by the Borden Co. against Edward Schreder, Salem merchant.

The litigation will determine whether a manufacturer can restrain a dealer not under contract from selling its product at less than the contract charges.

Borden complains that Mr. Schreder has advertised and sold one of Borden's trade-marked items, at a price lower than that established by Borden under fair trade contracts. Although Borden has entered into numerous contracts with Oregon dealers fixing minimum resale prices, it does not claim any contract with Mr. Schreder. The court is asked to enjoin Mr. Schreder from continuing sales of the product below the price fixed in the contracts.

## Goad Heads GM Dayton Divisions

NEW YORK CITY—Appointment of L. C. Goad, vice president, as a group executive in charge of the General Motors divisions at Dayton—Frigidaire, Delco Products, Moraine Products, Aeroproducts, and Inland Mfg.; the Delco Appliance Division at Rochester, N. Y., and also the Buick-Oldsmobile-Pontiac Assembly Division with plants at Linden, N. J., and Southgate, Calif., and contemplated plants at Atlanta, Ga., Framingham, Mass., Kansas City, Mo., and Wilmington, Del., was announced last week by C. E. Wilson, president of General Motors.

The Dayton divisions have been under the direction of E. F. Johnson, who will relinquish his status as group executive of those divisions, but who will continue as vice president of General Motors and a member of the Administration Committee until the effective date of his retirement, Dec. 31, 1945.

Mr. Goad joined the Delco-Remy Co. at Anderson, Ind., in 1923. He transferred to the AC Spark Plug Division in 1933, becoming general manager in 1938. After several assignments in Detroit, he was appointed general manager of the Eastern Aircraft Division in 1942 and elected a vice president of General Motors in 1943. He is a member of the Administration Committee of General Motors.

## Norge Elevates Clary, 4 Other Executives

DETROIT—Howard L. Clary's appointment as assistant general sales manager, and the promotion of four other Norge executives in a move "designed to strengthen its merchandising organization," have been announced by M. G. O'Harra, vice president and general sales manager of Norge Division, Borg-Warner Corp.

E. J. Kanker, E. R. Bridge, C. H. MacMahon, and Ellis Redden are the others involved in this personnel shift.

Mr. Clary, who was recently made manager of sales promotion, will "coordinate all sales department operations" and will direct activities of the company's field force in his new position, explained Mr. O'Harra. Mr. Clary has been with Norge since 1927, with the exception of three war years when he served with the War Production Board in Washington, D. C.

Mr. Kanker, formerly assistant to Mr. O'Harra, is in the newly created post of director of market research, reporting directly to Howard E. Blood, Norge president.

Mr. Bridge, formerly domestic (Concluded on Page 13, Column 2)

## Union Rejects G-E's Offer of 10% Pay Raise

NEW YORK CITY—General Electric Co.'s offer of a 10% wage increase, which President Charles E. Wilson said was not really warranted under present conditions, has been rejected by the United Electrical, Radio and Machine Workers of America (CIO).

The union has demanded a \$2 a day boost for its members employed by G-E, Westinghouse Electric Corp., and electrical divisions of General Motors Corp. Union members recently approved a strike authorization, if union officials consider it necessary.

G-E's offer of a wage increase will go into effect Jan. 1 for all non-union workers, and salaried employees receiving between \$3,000 and \$5,000 annually will be granted a \$300 boost at the same time, Mr. Wilson announced.

These increases and those offered the union would amount to approximately \$25,700,000 annually for some 124,000 G-E employees.

Proposed increase for the union is conditioned upon the union's agreeing not to impose limitations on, or obstacles to, increased production by its members, stated Mr. Wilson.

Acceptance of the offer by the union would compel the company to

WASHINGTON, D. C., Dec. 27—The General Electric Co. has agreed to meet Jan. 2 with Federal labor conciliators to discuss the threatened strike in electrical industry plants, Edgar L. Warren, chief labor conciliator, reported today.

The conciliators are expected to make a final effort to settle wage disputes which lead to the strike vote, before the CIO Electrical Workers Executive Board meets Jan. 5 to work out details for the strike, which might be called later in the month.

seek a general increase in price ceilings, said Mr. Wilson, adding that "we regret that through this decision we join the forces of inflation."

Besides terming the company's offer inflationary, Mr. Wilson declared that the \$2 demanded by the union was "economically unsound." Commenting on the strike threat, he stated:

"Serious as a strike would be to those who need home appliances, to the employees through the loss of compensation, and to the stockholders who own the company, the effect of such a cessation of production would be even more critical for thousands of both large and small manufacturers, whose production, in turn, is dependent upon this company's furnishing component parts, such as motors and controls, electronic de- (Concluded on Page 13, Column 2)

## Locker Plant Foods Okay After 20-Hour Shutdown

TULARE, Calif.—Although refrigeration machinery was out of service for 20 hours following a recent fire at the Food Bank grocery store and locker plant here, most of the food stored in the lockers was undamaged, reports Stanley Smith, owner.

The grocery store was destroyed by the fire which was started when an automobile knocked down a high voltage power pole. Heavy insulation and fire-resisting construction of the locker plant probably prevented damage to that section, believes Mr. Smith.

Construction of a new market will be started as soon as possible, according to Mr. Smith.



## Are Manufacturers Holding Back Deliveries?



Charges that manufacturers were deliberately "holding back" shipments of new goods could be replied to by Philco Corp. with this photo showing one of the five transport planes the company chartered to rush its first production radio sets to Philco distributors in 41 major cities in time to reach the Christmas trade.

### Rebuilding and Exchange REFRIGERATION PARTS

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CHICAGO 11, ILLINOIS

## \$25,000,000 Appliance Program Launched By Cooperatives Includes Complete Lines

CHICAGO—First household refrigerator manufactured to its own specifications is one of several products scheduled for early appearance in a \$25,000,000 postwar appliance program now being carried out by National Cooperatives, Inc.

This program is being publicized by what is considered one of the most extensive national sales, merchandising, and training plans to promote cooperatively-distributed appliances.

Also on National Cooperatives' purchasing, merchandising, and manufacturing calendar are farm and home freezers, washers, gas and electric ranges, electric water heaters, vacuum cleaners, pressure cookers, radios, irons, and food mixers.

Only one refrigerator model, of 9-cu. ft. capacity, will be manufactured at present, according to Edward L. Williams, service manager. The box was designed by Barnes & Renike, of Chicago, for the federation, which has supplied its own dies.

To be marketed under the trade name, "Co-op," as are all the appliances, the refrigerator has a 1/4-hp. Tecumseh condensing unit and a Bohn Aluminum & Brass evaporator.

National Cooperatives has contracted for 20,000 units, with an option for 10,000 more, Mr. Williams said. First of the units are expected to come off the production line about Dec. 15, according to Mr. Williams, who said the price has not yet been fixed.

Two models of 20,000 farm and

home freezers, also made to the co-op's specifications, will begin to flow to consumers around the first of the year, Mr. Williams stated. A single-compartment type is being produced in 4, 6, 8, and 16-cu. ft. capacities and a two-compartment unit in 6, 12, and 20-cu. ft. capacities.

Between now and next July, 5,000 washing machines of a current model will be manufactured for the organization, and during the following year addition of another model will push total volume to about 15,000, Mr. Williams said. He said approximately 18,000 vacuum cleaners of both tank and floor types had been ordered, with some samples already being shipped.

Plans have been made for production of 7,000 electric water heaters in National Cooperatives' own plant in Albert Lea, Minn., it was stated. Plastic radios in two models are being made under a 30,000-unit contract, and pressure cookers are now being delivered in 21-qt. sizes, with the 4-qt. type to follow about Jan. 15, according to the spokesman.

The gas and electric range and iron programs are not yet completed, Mr. Williams said.

National Cooperatives' advertising section is utilizing sales and service manuals, consumer appliance pamphlets, parts folders, and other promotional material in backing the program.

Another phase of the campaign is a service training program, which includes distribution of two text books, a trouble-shooter's guide, and motion pictures. This material will be used by regional groups in their training schools.

National Cooperatives is a federation of 20 regional wholesale cooperative associations in the U. S. and Canada serving more than 5,000 local cooperatives. These local co-ops are said to represent about 1,500,000 consumer members.

The national unit serves as the purchasing, merchandising, and manufacturing agency for its members. At present, it markets about 8,000 types of products.

Purchases by regional co-ops totaled \$152,523,298 in 1944, according to National Cooperatives.

In collaboration with National's staff, a four-man technical committee, selected from member wholesale associations, controls the quality of appliances manufactured and contracted for under the "Co-op" label. This committee is comprised of Grant Grebel, Ted Wesanan, Kenneth Hagans, and Vaughn Kegg.

The co-op's appliance program is directed by Otto Murkalla, coordinator of purchasing; John Blackburn, sales manager; and Mr. Williams.

## 'Co-op' Refrigerator



This 9-cu. ft. refrigerator is being manufactured for National Cooperatives according to its own designs and will be sold through "co-ops."

## Prices Set on Copeland Commercial Boxes

SIDNEY, Ohio — Consumers will pay ceiling prices of \$440 and \$490 for a 16.5-cu. ft. reach-in commercial refrigerator manufactured by Copeland Refrigeration Corp. here, according to the provisions of Order 157, MPR 591.

The lower price is for the plain-coil type of unit, while the higher-priced refrigerator is equipped with the ice-cube coil. This model, No. 160, has a 1/4-hp. condensing unit.

Maximum prices on the plain-coil refrigerator are: to distributors, \$220; to dealers, \$264; and to consumers, \$440. Distributors will pay \$245 for the other variety; dealers, \$298; and consumers, \$490.

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### OASIS Electric WATER COOLERS

OASIS means the best in clean, correctly cooled drinking water... 24 hours a day year in year out! Made by EBCO... pioneers in electric water coolers.

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401 W. Town Street  
Columbus, 8, Ohio

## KRAMER Radial Unit Cooler



### 1. SAVES SPACE.

Installed in mid-ceiling — occupies a minimum of overhead space.

### 2. EFFECTIVE AIR DISTRIBUTION.

Even discharge in all directions assures uniform temperature throughout the refrigerator.

### 3. CORRECTLY ENGINEERED.

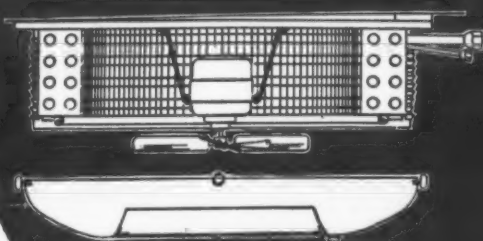
Low discharge velocity.  
High relative humidity.

### 4. TOPS IN CONSTRUCTION.

All copper coil.  
Ball-bearing motor, totally enclosed.  
**REQUIRES NO OILING.**  
Built-in Heat Exchanger.  
Silent fan.  
Bottom pan easily removable for free access to all parts.

### 5. ATTRACTIVE.

Two-tone crackle finish.  
Specially designed Venetian discharge Grille.



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CATALOG R-142 N

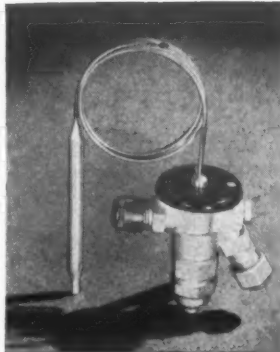
## KRAMER TRENTON CO.

*Trenton, New Jersey*

## 6 in 1\* V-200

THERMAL  
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Thoroughly tested in field use, the V-200 is proving its day-in day-out reliability for an increasing number of users. They endorse its many outstanding features, such as—



✓ Easily-removed orifice cartridges eliminate need for stocking several sizes for low tonnage installations.

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✓ Ample diaphragm plus balanced, low-rate adjusting spring.

✓ Carefully-lapped hard-faced ball insures tight shut-off.

✓ Frictionless pusher pin.

✓ Semi-liquid charged; may be placed in ambient temperatures higher or lower than bulb temperatures with no loss of control.

✓ Unmatched sensitivity.

For complete specifications on the V-200 and other refrigerant controls in the broad GENERAL CONTROLS' line, write for your copy of Catalog 52.

Cartridge Number	CAPACITY in B.T.U. per HOUR. FREON METHYL CH. SULPH. DI.		
4400.1	750	1700	1710
4400.2	1500	3400	3420
4400.3	3000	6800	6840
4400.4	6000	13600	13700
4400.5	9000	20400	20500
V-200 WITH NO CARTRIDGE	12000	27200	27400

FOR CONTROLLING...

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METHYL CHLORIDE  
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**GENERAL**  
801 ALLEN AVENUE



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## Heads Salem Sales



F. A. HAAG

## Haag Appointed Salem Sales Manager

SALEM, Ohio—F. A. Haag, formerly sales manager of Kold-Hold Mfg. Co., of Lansing, Mich., has been appointed sales manager of the refrigeration division of Salem Engineering Co. here.

Following his graduation as a mechanical engineer from the University of Michigan in 1931, Mr. Haag joined Fedders Mfg. Co., spending two years in engineering and eight years in sales. Part of the time he managed Fedders' New York City office.

Since 1940 Mr. Haag has been with Kold-Hold—two years as salesman and three years as sales manager.

## SORENG

- WIRING HARNESS
- SWITCHES
- RECEPTACLES

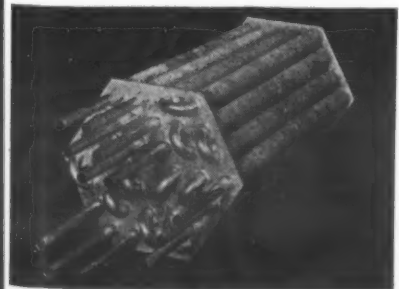
ARE ENGINEERED TO MEET YOUR PRODUCTION REQUIREMENTS

SORENG MANUFACTURING CORPORATION

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## ROME-CONDENSER

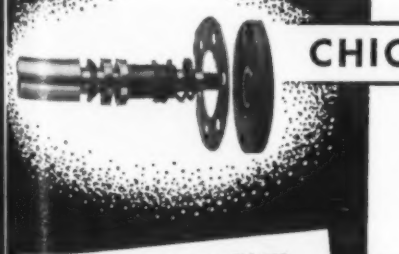
★ Jointless Type ★



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## CHICAGO SHAFT SEALS

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## 4 Executives Elected Vice Presidents of Minneapolis-Honeywell

MINNEAPOLIS—Appointments of four vice presidents, two executive vice presidents, and personnel changes in sales and production divisions have been announced by Harold W. Sweatt, president of Minneapolis-Honeywell Regulator Co.

Paul B. Wishart has been elected vice president in charge of factory operations in Minneapolis; Arthur H. Lockrae, vice president in charge of the heating controls department; John E. Haines, vice president in charge of the commercial controls department; and C. D. Lyford, vice president in charge of sales to the gas industry.

C. B. Sweatt and W. L. Huff have been elected executive vice presidents with authority to act in executive capacity in any of the company's divisions or activities. This move recognizes a policy that has been in general practice, explained President Sweatt. Mr. Huff also continues as treasurer.

James H. Binger has been elected assistant secretary to take over the duties of W. F. Marquart, who is retiring to return to private law practice.

Thomas McDonald, who has been vice president in charge of the company's aeronautical controls plant in Chicago, was elected vice president in charge of sales, assuming responsibilities for activities formerly directed by C. B. Sweatt.

Alfred M. Wilson, also a vice president, will be responsible for all company activities in aeronautical controls and will coordinate manufacturing and sales operations of this division with other company divisions.

Three of the four new vice presidents have been with Minneapolis-Honeywell for at least 16 years. Mr. Wishart joined the company in 1942 as assistant superintendent in charge of production and was later made factory manager in charge of all production in the Minneapolis plants.

Mr. Lockrae came to M-H from the Honeywell Heating Specialties Co. when the latter merged with the Minneapolis Heat Regulator Co. in 1927. Starting as a salesman, he was advanced to supervision of sales to the oil burner industry and last year was made manager of the heating controls department.

Mr. Haines joined the company's sales department in 1929, and was successively manager of branch operations in New York City, manager of the national regulator division in Chicago, manager of the air conditioning controls division, and in 1944, manager of the commercial controls department which previously had absorbed supervision of activities in the air conditioning field.

Starting with the company in the service department in 1919, Mr. Lyford was later promoted to the sales department and served in various sales divisions until 1925, when he was placed in charge of sales to the gas industry.

## R. D. Gray to Represent Koch In Southeast

NORTH KANSAS CITY, Mo.—Ronald D. Gray, formerly commercial refrigeration supervisor of Westinghouse Electric Supply Co., at Jacksonville, Fla., has been appointed southeastern sales representative for Koch refrigerators, reports R. H. Starr, vice president.

Through distributors and dealers, Mr. Gray will supervise Koch sales in North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Tennessee. His headquarters will be at Jacksonville Beach, Fla. Mr. Gray resigned from Westinghouse on Dec. 15.

## Become Vice Presidents of Controls Company



ARTHUR H. LOCKRAE



PAUL B. WISHART



C. D. LYFORD



JOHN E. HAINES

America's leading stores feature —

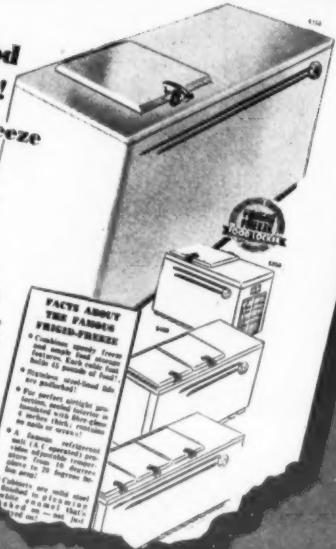


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have the call. This Modern Food Conservator has many unusual advantages. Sold through distributors of refrigeration and insulation.

Get our proposition

**Master Manufacturing Corp.**  
121 Main St. Sioux City 4, Iowa  
**OVER 800,000 IN USE**

## OPA Sets Ceilings on 2 Bendix Washers

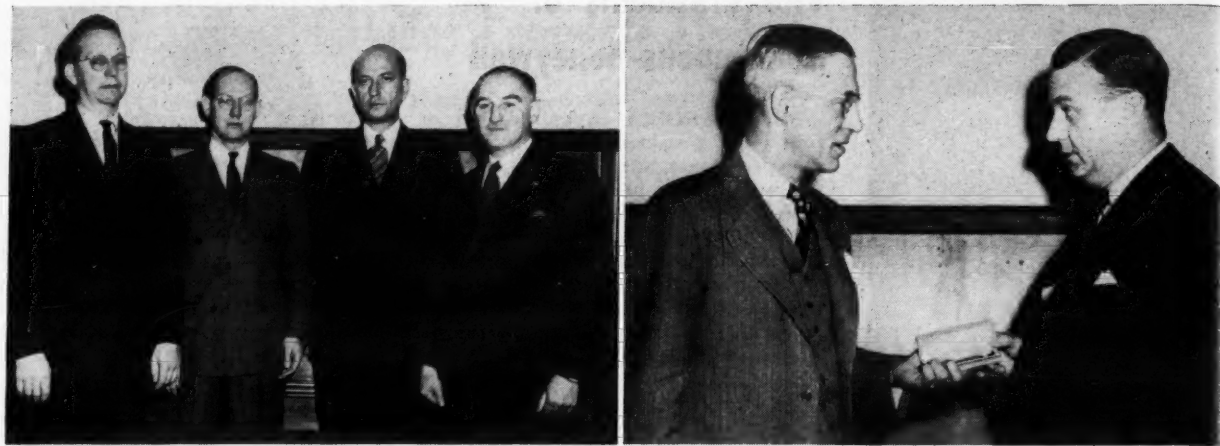
SOUTH BEND, Ind.—Retail ceiling prices were recently approved by OPA for two Bendix models.

Maximum prices for sales by dealers in each zone were established as follows by Order 23, MPR 86: Standard Automatic—\$159.50, \$162.50, \$169.50; Deluxe Automatic—\$179.50, \$182.50, \$189.50.

The order provides that distributors will determine their ceiling prices to dealers in accordance with provisions of section 15, MPR 86.

Dealers are authorized to add \$10 to these prices for installation. The order defines installation as including setting up the machine; bolting it to the floor or, at the option of the purchaser, otherwise securing it; making the water connections; and providing two ½-inch shutoff valves, up to 8 feet of pipe for water lines, up to 5 feet of drain hose, and up to 5 feet of wire for connection to electric facilities.

## Past and Present Officers of A.S.R.E. Honored at Meeting



National officers of the American Society of Refrigerating Engineers, elected at the recent annual convention in New York. Left to right: Clifford F. Holske, Vilter Mfg. Co., New York City, vice president; Prof. Burgess H. Jennings, Northwestern Technological Institute, Evanston, Ill., treasurer; Roland H. Money, Reynolds Metals Co., vice president; Charles S. Leopold, consulting engineer, Philadelphia, president. (At right) Charles R. Logan, Electric Power & Equipment Co., a former A.S.R.E. president, presents a testimonial gift to John F. Stone, Johns-Manville Corp., retiring president.

## Black Heads Kelvinator Public Relations

DETROIT—Appointment of Fred L. Black as director of public relations of Nash-Kelvinator Corp. was announced recently.

Mr. Black, who joined Nash-Kelvinator in 1943, has been actively associated with Vice President A. M. Wibel in government contract work. For 23 years, Mr. Black was with the Ford Motor Co. as public relations and advertising executive, and was director of advertising.

## Carrier Introduces 15 Ft. & 30 Ft. Upright Farm Freezers After Survey of 200,000 Families

SYRACUSE, N. Y.—Plans for production early in 1946 of two new upright farm freezers have been announced by Carrier Corp.

Manufacture will start in February and first models will consist of a freezer with a capacity of 30 cu. ft. and another of 15 cu. ft. Both are of upright design, with front-opening doors, a departure from the conventional chest-type. This advance provides convenient access to the freezing and storage shelves, and reduces the floor space occupied to a minimum in relation to cubic foot capacity. Production will level off at 3,000 units a month, and distribution will be through leading farm cooperatives and regular Carrier distribution channels.

In order to fit the new freezers exactly to farm needs, 200,000 farm families were interviewed during a four-year period of research and field testing conducted jointly by farm cooperatives and Carrier Corp. Many suggestions made by farmers have been incorporated in the design of the new freezers.

The larger of the two models, of 30-cu. ft. capacity, will provide storage space for 1,000 to 1,200 pounds of frozen foods, while the smaller has a capacity of 500 to 600 pounds. Freezing capacity of each unit is from 50 to 75 pounds of food per day.

The 30-cu. ft. model contains a ½-hp. hermetically sealed compressor, while the 15-cu. ft. design utilizes a ¼-hp. hermetically sealed compressor. The shelves of both freezers serve as cooling plates, an arrangement which affords even temperature distribution throughout, and also provides direct-contact freezing on three of the four shelves in the boxes.

In addition to upright design, front opening doors, and conservation of floor space, other features of the freezers, as enumerated by Carrier engineers, include:

1. Ease of service. For example, the entire cooling system, including plate shelves, may be quickly removed as a unit in case of necessity.
2. Economy of operation.
3. All-steel welded exterior with moisture-proof seal on all outside seams.
4. Interior and exterior finish of baked white enamel.
5. Heavy-duty door handles equipped with lock device.
6. Built-in signal light to show proper operation.

The new Carrier units, which have been designed to maintain a 0 to -5° F. temperature in a 110 F. room, will be produced in the Carrier Syracuse plant, where an entire floor will be devoted to completely new and self-contained manufacturing facilities.

## Westinghouse Laundry Post Assigned to Dunson

MANSFIELD, Ohio — Robert C. Dunson has been appointed product supervisor for the laundry equipment department of Westinghouse Electric Appliance Division, announces L. Frank Brownson, manager.

Mr. Dunson, who has been with Westinghouse since 1932, will coordinate the plans of the sales department with the production departments on the Laundromat automatic washer and the company's automatic clothes dryer, as well as electric ironers and conventional washers.

Upright construction and front-opening doors feature this new 30-cu. ft. capacity farm freezer which Carrier Corp. will begin producing early in 1946. Production will be geared to 3,000 units per month, Carrier officials report.



More  
important  
than ever

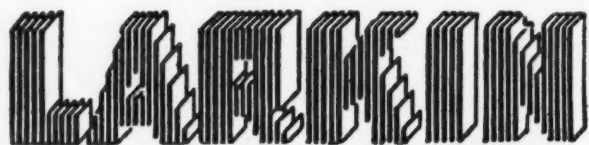
in the war  
on moisture

Order from your jobber



## IMPERIAL TORPEDO DEHYDRATOR

One piece streamlined shell—fewer joints—no soft solder—less chance of leakage. Copper and brass construction. Packed with "Silica Gel". Built in sizes up to 7 h.p. IMPERIAL BRASS MFG. CO., 565 S. RACINE AVE., CHICAGO 7, ILL.



## REFRIGERATION PRODUCTS

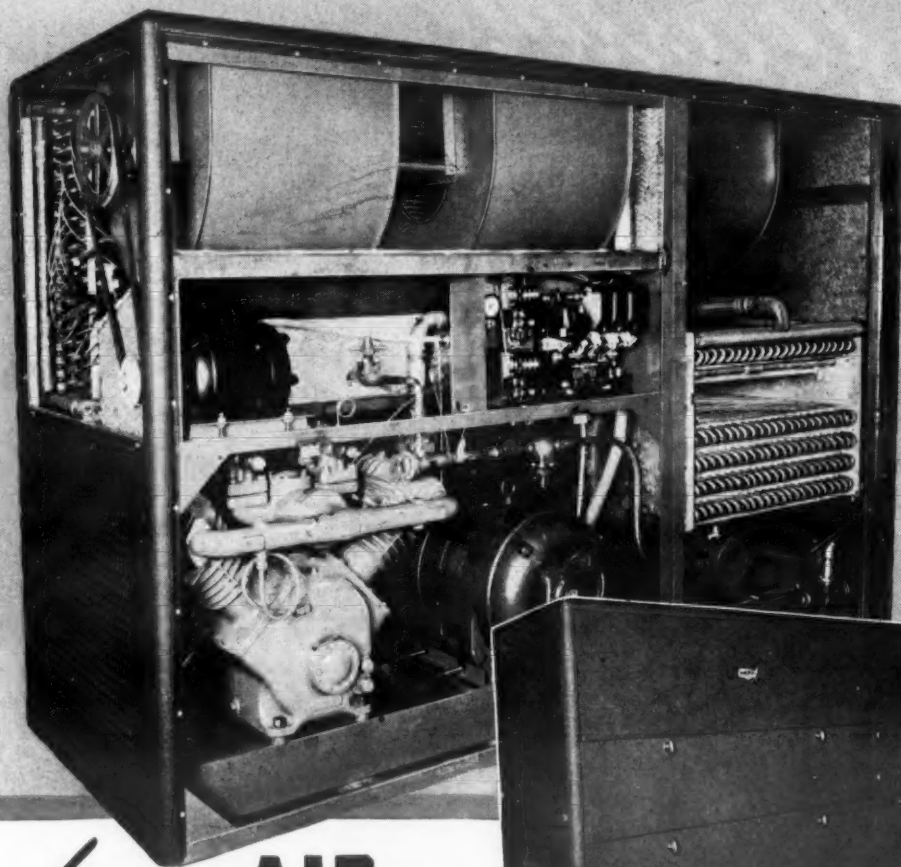
Humi-Temp Forced  
Convection Units—  
Patented CROSS-  
FIN-COILS—Zinc  
Fused Steel Plate  
Coils—Disseminator

See Your Jobber  
or Write Direct

Pans—Heat Ex-  
changers—Evaporative  
Condensers—  
Instantaneous  
Water Coolers—  
Bare Tube Coils

LARKIN COILS,

519 Memorial Drive., S.E., Atlanta, Ga.



Order us **AIRco**  
**REFRIGERATED**  
**KOOLER-AIRE**  
*Now!*

Above: Covers removed showing refrigerating section, two-stage evaporative condenser, and the section for cooling, dehumidifying and circulating the air.

...to meet your air-conditioning needs next summer!

● ORDER AT ONCE to insure delivery of usAIRco Refrigerated Kooler-Aire when you want it. Increased demands for air conditioning equipment are being met by rapidly-expanded production.

usAIRco Refrigerated Kooler-Aire—the most economical, efficient and flexible unit for commercial and industrial air conditioning—is simple to install, low in cost to operate. All wiring and piping is complete in the packaged

unit, ready to connect to water, air duct and electrical system. The compact, space-saving features of the Refrigerated Kooler-Aire give you more for your air conditioning dollar.

Made in eight sizes to meet load and design requirements of any air conditioning job, using single or multiple units, usAIRco Refrigerated

Kooler-Aire leads the air conditioning field! Write today for further information.



## UNITED STATES AIR CONDITIONING CORPORATION

2101 Kennedy Street Northeast



Northwestern Terminal, Minneapolis, Minn.

Manufacturers of the most complete line of air-handling equipment • Factory representatives in principal cities



## Wholesale and Retail Prices Established For 10 Hotpoint, G-E Water Heater Models

CHICAGO—OPA's schedule of retail ceilings for 10 models of electric water heaters manufactured by Edison General Electric Appliance Co., Inc., and distributed by both Edison G-E and General Electric Co. shows prices varying from \$56.42 to \$132.40.

The maximum net delivered prices for sales to consumers were established as follows by Order 148, MPR 591:

Edison G-E	General Electric	Standard wattage	Non-Standard wattage
201WG144	G-101A—10 gal.	\$56.50	\$56.42
101WG336	G-309A—30 gal.	82.27	82.16
561WG340	G-301B—30 gal.	65.37	65.28
502WG342	G-302A—30 gal.	84.42	84.30
501WG442	G-401A—40 gal.	86.35	86.22
502WG442	G-402A—40 gal.	91.35	91.22
501WG542	G-521A—52 gal.	93.27	93.14
502WG542	G-522A—52 gal.	98.27	98.13
501WG842	G-861A—86 gal.	125.25	125.07
502WG842	G-862A—86 gal.	132.40	132.21

Below are the ceilings for sales to "servicing" dealers.

These prices are f.o.b. point of shipment, the order states, but if shipment is made directly by either company to a dealer, the prices are f.o.b. the dealer's place of business.

Maximum prices to distributors when the heaters are supplied with standard wattage in carload quantities are:

Edison G-E	General Electric	Price
201WG144	G-101A	\$28.91
101WG336	G-309A	42.42
561WG340	G-301B	34.07
502WG342	G-302A	43.65
501WG442	G-401A	44.78
502WG442	G-402A	47.31
501WG542	G-521A	48.38
502WG542	G-522A	50.92
501WG842	G-861A	65.12
502WG842	G-862A	68.65

If supplied with non-standard wattage, the heaters may not exceed the following ceilings on sales in carload quantities to distributors (model numbers are G-E): G-101A, \$29.71; G-309A, \$43.55; G-301B, \$34.94; G-302A, \$44.80; G-401A, \$45.95; G-402A, \$48.55; G-521A, \$49.64; G-522A, \$52.25; G-861A, \$66.80; G-862A, \$70.44.

Addition of 3% to the distributor prices listed above is prescribed by the order to determine maximum prices for sales in less than carload quantities.

Revised MPR 251 governs the ceilings for sales of the heaters on an installed basis.

### On shipments of—

Edison G-E	General Electric	1 to 4 heaters, standard wattage	5 or more heaters, standard wattage	1 to 4 heaters, non-standard wattage	5 or more heaters, non-standard wattage
201WG144	G-101A	\$37.64	\$33.88	\$37.56	\$33.80
101WG336	G-309A	54.85	49.37	54.74	49.26
561WG340	G-301B	43.63	39.26	43.54	39.17
502WG342	G-302A	56.33	50.70	56.21	50.58
501WG442	G-401A	57.60	51.84	57.47	51.71
502WG442	G-402A	60.96	54.86	60.83	54.73
501WG542	G-521A	62.19	55.97	62.06	55.84
502WG542	G-522A	65.53	58.98	65.39	58.84
501WG842	G-861A	83.55	75.19	83.37	75.01
502WG842	G-862A	88.24	79.42	88.05	79.23

## Hurley Gets Prices on 6 Washers, Ironers

CHICAGO—Ceiling prices for six models of washing and ironing machines manufactured by Hurley Machine Division of Electric Household Utilities Corp. have been revised.

Dealers' maximum prices to consumers for three models of washing machines are as follows, in order of Zones 1, 2, and 3: 42-8, \$69.95, \$74.95, \$78.95; 42-8 ER, \$79.95, \$84.95, \$88.95; 42-9 ER, \$89.95, \$94.95, \$96.95.

Of the ironing machines, Model 88 retails at \$34.95 and Model 89 at \$44.95, in all zones.

Section one of Revised Order 6 authorizes the Hurley Division to adjust its ceiling prices established under section three of MPR 86 by the amount provided in section five for all washing and ironing machines sold and delivered by it on and after Oct. 4, 1945.

Distributors' ceiling prices follow:

Washing machines, Model	Zone 1 When sold in quantities of—			Zone 2 When sold in quantities of—			Zone 3 When sold in quantities of—		
	10 or more	2 to 9	1	10 or more	2 to 9	1	10 or more	2 to 9	1
42-8	\$43.00	\$44.03	\$45.50	\$46.08	\$47.18	\$48.74	\$47.30	\$48.44	\$50.06
42-8ER	49.15	50.33	52.01	52.23	53.48	55.25	53.45	54.74	56.57
42-9	55.30	56.63	58.52	58.38	59.78	61.76	59.60	61.04	63.08

## OPA Alters Washer, Ironer Price Rules

WASHINGTON, D. C. — Three minor changes have been made in the regulation governing reconversion prices of household washing and ironing machines, OPA reports. The action will have no effect on consumer prices, the agency said.

The \$10 addition allowed in the regulation for machines equipped with a water pump is intended to apply only to the wringer type machines, which may be sold with or without the pump, OPA said. As the regulation originally read, the addition could have been made also by manufacturers of spinner and automatic type washers, which in all cases are equipped with water pumps and the prices of which already reflect the cost of pump equipment.

Manufacturers may apply for approval of individual price zones different from those set up in the regulation, when it appears that no increase in the general level of consumer prices will result, OPA said.

The regulation sets up an eastern, midwestern, and western zone, with price differentials to reflect cost of shipping from one zone to another. They do not correspond exactly with those used in the prewar period by all manufacturers, and where an individual change would simplify the distribution problem of any manufacturer, he may apply for the alteration, OPA said.

North Dakota and Alabama, omitted from the list of states in zones 1 and 2 respectively, are included in the amendment, and the table for the establishment of retail ceiling prices has been corrected.

## Ceiling Prices for 3 Kelvinator Range Models Announced

DETROIT — Approval of ceiling prices for three models of electric ranges manufactured by Nash-Kelvinator Corp. was recently granted by OPA.

Maximum retail prices for the three models, ER-423C, ER-427, and ER-429, are respectively \$176.95, \$194.95, and \$216.95. These prices include the Federal excise tax but not state or local taxes.

Also included in the prices, according to Order 203, MPR 64, are delivery, a one-year warranty, and installation when connection to electric facilities is the only requirement. The order permits addition of \$3.50 if a "pigtail" is required and furnished.

For sales by wholesale distributors to retail dealers, the maximum prices including the Federal excise tax are as follows: ER-423C, \$117.31; ER-427, \$129.26; ER-429, \$143.86.

GENUINE  
**MAYFLOWER**  
CONDENSING UNITS AND PARTS

**Jobber Inquiries Invited**

A complete line backed by nearly a quarter century of user confidence. Write for prices.



MAYFLOWER PRODUCTS, INC.  
13 S. 5th St., Richmond, Ind.

**Bowen**  
REFRIGERATION  
SUPPLIES, INC.

Atlanta Jacksonville  
Tampa Charlotte

"The South's Largest"  
Refrigeration Supply Jobber

.... MODERN  
EFFICIENT  
ECONOMICAL  
REFRIGERATION

**DOLE** Vacuum COLD PLATES

Maximum Refrigeration Efficiency for all REFRIGERATION PURPOSES

**DOLE** Largest Manufacturers of Plate Type Evaporators

REFRIGERATING COMPANY

5910 North Pulaski Road, Chicago 30, Illinois  
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*Post-War*

**FILTERPURE  
BACK BAR  
UNITS**

**They're New  
and Different—  
With These Important  
Features:**

1. Extremely compact—built especially for back bars
2. Centrifugal blower circulation
3. Quickly and easily installed
4. Even temperature throughout entire fixture
5. Two units—for all size back bars
6. Exclusive Betz coil construction

Let us send you complete information about our post-war line of cooling units.

*For Information,  
Call or Write—*

**BETZ CORPORATION**  
HAMMOND, INDIANA



WHERE EVERY  
SERVICE MAN LOOKS  
FIRST FOR

**REFRIGERATION**  
PARTS & SUPPLIES

WRITE FOR CATALOG

**THE HARRY ALTER CO.**

1728 S. Michigan Ave. Chicago, 16, Ill. Two Big Warehouses to Serve You

134 Lafayette St. New York, 13, N. Y.



## Graves Heads Brunswick Wholesale District



H. D. GRAVES

DETROIT—H. D. Graves, formerly with Temprite Products Corp. as midwest regional manager, has been appointed wholesale district representative at the Brunswick-Balke-Collender Co. for distribution of Blue-Flash refrigeration products. He will headquarter in Chicago, it was announced.

## Davis Joins Macys

NEW YORK CITY—Announcement has been made of the appointment of David Davis as buyer of radios and phonographs for all stores of R. H. Macy & Co., Inc.

## Peterson Named Adv. Head For Pressed Steel Line

CHICAGO — Curtis L. Peterson has been appointed supervisor of advertising to handle the program of the Domestic Appliance Division of The Pressed Steel Car Co., A. Raysson, general sales manager of the company, has announced.

The Chicago sales office of the Domestic Appliance Division of the company is now at 666 Lake Shore Drive, Chicago. The manufacturing plant is at Hegewisch, near Chicago.

"Mr. Peterson comes to Pressed Steel Car Co. after a year's service with the Regional Office of Price Administration where he headed the Public Relations activity of that agency," Mr. Raysson said.

Mr. Peterson served with the Twenty First Regiment during the war and for several years before his army service was director of advertising for Ekco Products in Chicago. He is a graduate of Northwestern University.

## Eisenberg To Manage Appliance Wholesale

NEWARK, N. J.—Appointment of Albert A. Eisenberg to the posts of general sales manager and general manager of Appliance Wholesalers, was recently announced.

Mr. Eisenberg formerly operated the Surrey hotel in Miami Beach, but will now devote his full time to the appliance business, it was announced.

The firm, Appliance Wholesalers, has offices at 279 Halsey St. and serves approximately 700 retail outlets.

## Scheidel Heads Sunroc Office In New York



FRANK X. SCHEIDEL

NEW YORK CITY—Sunroc Refrigeration Co. announces the appointment of Frank X. Scheidel as head of its New York office.

Mr. Scheidel has been engaged in the sales, service, and merchandising of refrigeration equipment since 1928.

Since 1936, he has been merchandising water coolers. In 1934, he became associated with the development of a convertible unit, and in 1937 he took charge of its promotion in the New York area. He has leased and sold water coolers and filtering equipment.

## Note to Veterans:

## Be Sure You Have Experience and Capital If You Plan to Start Your Own Business

NEW YORK CITY—Memo to the 1,000,000 World War II veterans who contemplate setting themselves up in small businesses.

From Benjamin H. Namm, president of the National Retail Dry Goods Association:

"There are plenty of opportunities in the field, and you will be eagerly welcomed and generously assisted. BUT, before plunging into your own small business, pause to consider seriously whether or not you have sufficient experience and capital—principal causes of the majority of business failures."

This, in effect, is the qualified encouragement proffered veterans by Mr. Namm, who recently returned from a seven-week trip to England, France, and Germany. Sounding out soldiers on their postwar plans for entering the small business field, he found that a disturbingly large number of them who want to go into retailing have given little or no thought to their qualifications.

## THERE IS A DEMAND

That a demand exists for small stores is evident, Mr. Namm said, from the decline in the total number of U. S. business enterprises during the war years—a drop largely confined to small business. Quoting Better Business Bureau figures, he said the 3,400,000 enterprises in operation at the outbreak of war faded to 2,900,000 in 1943 "and it is reasonable to assume that the decline has continued during 1944 and 1945."

"The greatest decline was among household appliance stores, gasoline stations, radio stores, and meat markets," Mr. Namm declared. "These figures are striking in view of the fact that, if it had not been for the war, there would probably have been a sizable increase in the number of business enterprises."

However, Mr. Namm cautioned, "The soldier who enters small business—unarmed with adequate experience or sufficient capital, or lacking in what we in retailing call a 'sense of sell'—will in all likelihood be doing a disservice to himself, his family, and his community."

"The history of the last war is replete with the records of veterans who rushed into small business and then spent many long and arduous years paying off the debts they had incurred."

## CAUSE OF FAILURES

Mr. Namm cited commercial agencies which investigate causes of business failures as authority for the statement that the majority of failures are due to lack of experience and capital.

"It was disturbing to me," he confessed, "to talk with many of our G.I.'s abroad who do not seem to have given sufficient thought to these two problems."

For the one soldier out of every nine who intends to go into business for himself, according to an Army study, Mr. Namm recommended the advice of Lew Hahn, general manager of the Dry Goods association. He quoted from Mr. Hahn's booklet,

## "How to Start a Small Store":

"If you are to become a successful retailer, go forward with a stout heart, determined to learn the business and to make good. When you don't know the answer to any particular problem, then ask somebody who does know. You will then learn just as fast as your actual respect for knowledge and experience dictates."

For business organizations, Mr. Namm recommended these words of Ralph Bradford, general manager of the U. S. Chamber of Commerce, in his pamphlet, "Keeping Faith With the Veteran":

"The need is for a coordinated and genuinely useful program of public service to veterans. It should not be half done in many places but well done in one place in every community. In all community planning, the re-employment and business opportunities for veterans should receive first consideration."

Mr. Namm called attention to a "splendid" booklet prepared by the Better Business Bureau under the title, "Facts Veterans Should Know Before Starting a Small Business." He said the Bureau are giving valuable, direct advice to G.I.'s throughout the country.

He expressed gratification at discovering, during his tour of Europe, that the Army command "was so ready and eager to offer its full cooperation in the effort that business in general, and retail distribution in particular, is making to help provide jobs and business opportunities for our veterans."

**It's FULL FLOODED THE HUBBELL-YODER REFRIGERATION PLATE**

Every square inch of surface is prime heat pickup

ENGINEERING SERVICE, INC.  
1317 West 80th St., Cleveland, Ohio  
Sole Agents

**Send For Bulletins**

MU-185, MU-30B, and MU-7B on Wagner Electric Motors

Wagner Electric Corporation  
ESTABLISHED 1891  
6471 Plymouth Avenue, St. Louis 14, Mo., U. S. A.  
ELECTRICAL AND AUTOMOTIVE PRODUCTS

**LOW TEMPERATURE - 34°**

**STORAGE TYPE WATER COOLERS**

**HIGH HOURLY RATINGS... FOR USE WITH 1/2 to 15 HP CONDENSING UNITS**

**PACKAGED & REMOTE MODELS IMMEDIATE DELIVERY**

**FILTRINE MFG. CO.,**  
53 Lexington Ave., BROOKLYN 5, N. Y.  
"Manufacturers of Filters and Coolers for over 40 Years"

**Filtrine HIGH EFFICIENCY WATER COOLERS**

Suitable for BAKERIES, BOTTLERS, FILM PROCESSING, JACKET COOLING, DRINKING WATER AND ALL APPLICATIONS

**REDMOND**

## MORE THAN 15,000,000 MicroMotors

In twenty years the Redmond Company has become an outstanding leader in the manufacturing of small fractional horsepower motors.

**Redmond COMPANY, Inc., OWOSSO, MICHIGAN, U. S. A.**

A. C. Micromotors in sizes up to 1/25th horsepower, D. C. Micromotors up to 1/20th horsepower, Speed Controllers, and Blowers.



Today the combined Redmond facilities include more than five acres of floor area and 2000 employees.



# Inside Dope

By George F. Taubeneck

(Concluded from Page 1, Column 1)

When their war jobs are finished many of these talented young scientists should be going back to college laboratories and lecture rooms to train and inspire the next generation of science.

"War conditions have greatly disturbed our educational institutions by diversion of talented members of their faculties into war research, by drawing off faculty and students into military service, by utilizing educational facilities for military service training programs and by interrupting sources of financial support.

"Research budgets have been drastically curtailed, especially in the smaller institutions, which in many cases have not had opportunity to undertake Government research on a substantial scale. The financial strength of many institutions also has been impaired by the depression and the war conditions which followed. Now new burdens are thrust upon them as young men from the services return to resume their interrupted training.

## Return to Peace-Time Footing

"Research Corp.'s program of special postwar grants will round out the plans that are being made for the most effective and most prompt return of the war-engaged scientists to peace-time fundamental and applied research," Dr. Barker explains.

"The Rockefeller Foundation has already announced a comprehensive plan of pre-doctoral fellowships which will return to college former graduate students who left their studies and researches for war research.

"Current government legislation and proposed bills being considered by Congress will aid the return to college of students whose scientific and technological education was interrupted by the war.

"Research Corp. grants will assist colleges in building research-minded staffs which will help train the students returning to colleges from the war, as well as the future contingents of students from our secondary schools in future years."

The grants are made possible by the fact that during the war years research programs that would be normally supported by Research Corp. grants have been laid aside in order to free men and facilities for war research.

# Gilmer BELTS

When customers ask for replacement belts, be ready to supply them with rugged, long-lived, efficient Gilmer V-Belts—the low stretch belts that always fit—the dependable belts that build goodwill.

There are Gilmer V-Belts for all air-conditioning and refrigeration units. That's because they are made on the largest assortment of V-moulds in the world. Get in touch with your jobber today.

**L. H. GILMER COMPANY**  
Tacony, Philadelphia 35, Pa.  
Division of United States Rubber Company

## Westinghouse Appoints Brown Field Supervisor

SAN FRANCISCO—R. E. Brown, for the last three years a field supervisor for Moore Dry Dock Co. in Oakland, Calif., has been appointed Pacific Coast supervisor of domestic refrigerators and home freezers for the electrical appliance division of Westinghouse Electric Corp.

Mr. Brown's appointment was announced by J. J. Moffatt, Pacific Coast manager of the division. The new supervisor has been assigned to the promotion and sales of the appliances, through Westinghouse dealers, in the entire coastal area.

Prior to his association with the dry dock company, Mr. Brown was a Frigidaire sales manager in the Portland (Ore.) district for five years and a General Electric sales engineer in the Spokane area for two years.

Born in Scipio, Utah, Mr. Brown is a graduate of a Salt Lake City high school and, in 1930, of the University of Utah. He then joined the advertising sales department of the Salt Lake Tribune.

## Norge Makes a Gift of First Range Off Lines



Top award at the annual Fun-Fest of the Women's Advertising Club of Detroit was the first Norge range to be produced in the company's new plant in Effingham, Ill. Shown here are the winner, Mrs. Richard A. Bird; M. G. O'Harra, Norge vice president and general sales manager (left); and Harry J. Holbrook, electric range sales manager.

## THIS USER KNOWS



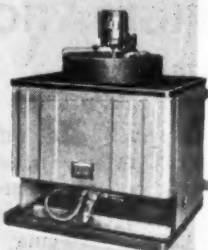
Max Weisberg of Jo-Mac Super Market, St. Louis, Missouri, says—I have used an AMCOIL FOOD CONDITIONER in my cooler for some time and know it helps to retain the natural freshness and bloom of the meats. I have never had any losses through trimming of meats, thanks to AMCOIL'S definite control of humidity which practically eliminates dehydration and shrinkage.

### UTILITY DOWN-DRAFT UNITS

Specially designed to meet the demands for a compact, efficient, wall-mounted unit.

Model	BTU/HR	15" MTD	List Price
UD-7	1,350		\$ 89.00
UD-17	2,250		99.00
UD-27	3,000		109.00
UD-37	4,200		129.00
UD-47	5,600		149.00
*UD-57	7,800		169.00
*UD-77	11,000		209.00
*UD-127	15,000		319.00
*UD-167	23,000		369.00

\*WITH HEAT EXCHANGER  
Expansion Valves and Controls not included in list prices.



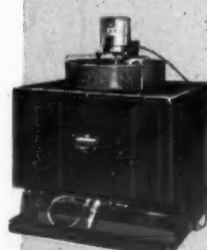
Streamlined, wall-mounted, down-draft unit for back-bar or under-counter coolers, reach-in and walk-in boxes. A space-saver supreme! Field-tested, and consumer-acceptance proved!

### AMCOIL NOW FEATURES

The new moderately priced utility cooling units, namely—  
The UDF Food Conditioners for preservation of fresh and perishable foods where the control of high humidity is a factor, and the regular UD models for the storage of package commodities.

### UTILITY FOOD CONDITIONER

A low-priced unit which ideally supplements the Amcoil DeLuxe model.



Model	BTU/HR	15" MTD	List Price
UDF-19	1,950		\$139.00
UDF-29	2,700		149.00
UDF-39	3,900		179.00
UDF-49	5,300		199.00
*UDF-59	7,500		219.00
*UDF-79	10,700		239.00
*UDF-129	14,000		374.00
*UDF-169	22,000		434.00

\*WITH HEAT EXCHANGER  
Humidifier included in list prices; valves, controls, etc., extra.

**JOBBER-DEALERS**  
investigate these latest  
AMCOIL profit makers

Big sales opportunities for dealers in this low-priced unit that combines many features of the De Luxe Food Conditioner. For high relative humidities up to 85%, and temperatures down to 36° F.

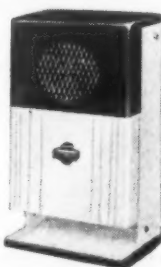
## STEP UP YOUR SALES AND PROFITS WITH THESE NEW AMCOIL MODELS

### DE LUXE FOOD CONDITIONER

A complete refrigeration system, except for condensing unit, which automatically preserves food without dehydration or shrinkage in Reach-In and Walk-In Coolers.



Model	BTU/HR	15" MTD	List Price
FC-50	7,500		\$233.00
FC-80	11,300		378.00
FC-130	17,000		601.00
FC-160	22,600		641.00



### ALSERVICE REACH-IN PANEL UNIT

A compact cooling unit for all refrigeration applications. Designed to meet a growing demand for medium-capacity units to balance condensing units of 1/4, 1/2, 3/4 or 1 hp. Especially suited for reach-in and small walk-in boxes where temperatures of 36° F. are required.

Model	BTU/HR	15" MTD	List Price
RI-15	2,000		\$ 94.00
RI-20S	3,600		129.00
RI-25	2,250		99.00
RI-30	3,000		114.00
RI-40	5,250		149.00
RI-45	6,150		169.00

### CEILING MOUNTED TWO-WAY MODEL UW UNITS

Discharges cooled air in two directions distributing it evenly over entire cooler.

Model	BTU/HR	15" MTD	List Price
UW-29	2,200		\$129.00
UW-39	3,200		160.00
UW-49	4,500		190.00
UW-59	5,800		204.00
UW-79	9,000		235.00

### DISTRICT OFFICES

Philadelphia Office: M. H. McTurk, Mgr.  
Chicago Office: H. C. Moore, Mgr.  
3510 Spring Garden Street 215 W. Ontario Street

MANUFACTURERS' REPRESENTATIVES:  
J. J. Madden, 212 Madison St., Dedham, Massachusetts  
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## They'll Do It Every Time . . . . By Jimmy Hatlo



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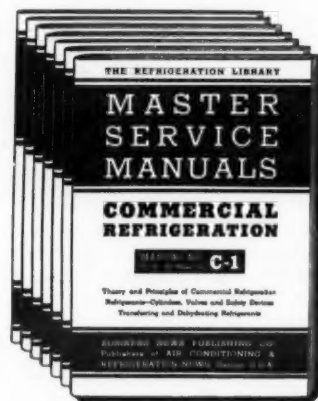
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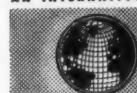
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VOLUME 46, No. 18, SERIAL No. 876, DECEMBER 31, 1945

## Electronics—An Appraisal of Peacetime Prospects

WAR-DEVELOPED uses of electronics—when finally revealed in their entirety—will astonish the nation.

So long as any fighting remained to be done, anywhere, our armed forces were calling for more electronic devices than the industry could produce.

But the reconversion period for the electronics industry—though delayed—is likely to be much shorter than that which other industries may experience.

Manufacturers of electronic devices in some cases need to change only the application and "housing" of their products in order to present postwar consumer items.

Their present tools, and trained employes, can be utilized almost entirely for the production of peacetime goods which consumers will "go for."

Here are a few samples: walkie-talkie radios, by means of which friends may converse while taking their evening strolls at opposite ends of the city, and which will permit a sales manager to keep tabs on his salesmen nightly, without the necessity of recourse to those hated report forms.

Radar, which can be employed to prevent accidents at sea, on railroads, in the air, and even on the motor highways.

As for industrial heating and industrial process controls, electronic devices may compete with those interesting new refrigeration applications for the title of "most useful new development born of the war." They'll make possible the elimination of the human-error element to a degree never before considered probable.

In both preventative and healing therapy, electronics will play a Florence Nightingale role.

New radionic rays will speed and insure healing, will annihilate germ armies at the outset of their invasions, and will introduce hitherto-out-of-reach microscopic studies which might reveal the mysteries of filterable viruses.

And these are but hints, Mr. Appliance Dealer, of the electronic miracles still to be revealed.

To sell and service television and electronics equipment, the industry can draw upon thousands of already-trained G. I. Joes. Both the Navy and the U. S. Army's Signal Corps have given large numbers of pre-selected young men the equivalent of a college course in electronics—and their field experiences have made these lads resourceful beyond peacetime standards.

These boys—some of them with bonus-cash-plus-loan-credit facilities of \$5,000 to \$10,000, in addition to their training and their pep, will furnish the industry and the nation with a nucleus of key specialty dealers.

Present-day specialty dealers interested in this field will not be asleep, either. They'll hire these lads as sales engineers, service managers, sales managers, demonstrators, and whatnot.

It will be like finding money when they put these expensively trained superbly conditioned lads on the payroll.

Any way you look at it, the coming industry of electronics appears to offer mighty interesting prospects for specialty selling organizations.



## Detroit Intends to Use 'Common Sense' In Enforcing New Refrigeration Code

By C. Dale Mericle

DETROIT—"We intend to enforce Detroit's new refrigeration code as rigidly as justice permits, but we know that you can't draw up a law to cover every situation," declared H. H. Mills, chief safety engineer of the City of Detroit, who addressed the Detroit Section, American Society of Refrigerating Engineers, at the Rackham Foundation here recently.

In discussing the code, Mr. Mills emphasized that "common sense" must be used at times in interpreting the code, even though its provisions are to be followed as strictly as possible.

Licensing features of the code were outlined at some length. All contractors must have a contractor's license for all repair and installation work, regardless of size of the equipment, stated Mr. Mills. Permits for work on individual systems, however, are not required for systems containing less than six pounds of refrigerant, but such work must be done by a licensed contractor or men in his employ, he explained.

### THREE TYPES OF LICENSES

Contractors, he added, are licensed in three grades: A—for domestic work only; B—for installations up to 5 tons; C—for all sizes. Type C licenses are restricted as to the refrigerants with which the contractor is familiar, he said.

The code applies to all new systems installed in the city of Detroit,

and to all existing systems when the later are repaired or replaced.

The code indirectly outlaws multiple apartment house installations, said Mr. Mills, by limiting the amount of refrigerant that may be employed by the size of the smallest area to which it is supplied.

"Manufacturers at first raised objections to the code's applying to very small units, such as bottle beverage coolers, ice cream cabinets, etc., saying that these were too small to cause any trouble," commented Mr. Mills.

"However, we feel it necessary to keep track of all toxic refrigerants in institutional and public assembly occupancies," said Mr. Mills to explain why these units are covered by the code.

Pointing out that the code provides for a five-man examining board responsible for conducting both oral and written examinations monthly of applicants for licenses, Mr. Mills stressed the more strict requirements for obtaining a contractor's license. To qualify for a license a contractor must have had three year's experience or be a college graduate with one year's experience. He may also obtain a license if he employs a man who can qualify, stated Mr. Mills.

### WEEDING OUT PROCESS

"With the weeding out of applicants, the quality of contractors will be more of a credit to the industry," he opined.

Among other provisions of the code mentioned by Mr. Mills was one requiring that refrigerant piping be inspected by the city before it is sealed up in walls, etc. As an aid to contractors, the code provides that contractors must notify the safety department a day in advance that the piping will be ready for inspection. If inspectors do not look the job over within 48 hours, the contractor may proceed with the installation.

Users of refrigerating systems of more than 1 ton capacity must take out an operator's license annually, Mr. Mills added. If the license for an individual system is issued for one refrigerant, a different refrigerant cannot be substituted without first obtaining the safety department's approval.

Another section of the code calls for identifying marks or symbols or fittings, tubing, etc. which show, or provide information for determining, pressure limits on such items.

The breakdown of various types of "occupancies" governing installations of systems was outlined briefly by Mr. Mills as (1) institutional, (2) public assembly, (3) residential, (4) commercial, and (5) industrial.

### REQUIREMENTS DIFFER

Requirements are most strict for institutional occupancies, least for industrial. Mr. Mills explained that it was chiefly a matter of safety, since, for example, it would be dangerous if refrigerant escaped in a hospital, but would perhaps not be so serious in an industrial type occupancy where there are generally few people in a large amount of space.

Following his discussion of the code, Mr. Mills, assisted by John Rehard and L. C. Gage, city refrigeration inspectors, answered questions brought up by A.S.R.E. members.

The statement that the code requires sweated joints in institutional or public assembly occupancies be made with 1,000° solder and withstand a pull-apart test equivalent to 500 lbs. and that 95-5 solder which fuses between 350° and 500° F. must be employed on domestic systems prompted Frank Carter of Detroit Lubricator Co. to ask:

"Does the code cover all joints in the system or just those made in the field?"

"All joints," said Mr. Mills.

"How about a screw joint sealed with soft solder?" inquired Mr. Carter.

"If the joint is held without sealing, soft solder can be used as a seal against leaking," declared Mr. Mills, adding that "if the joint wouldn't be held tight with just a solder seal we wouldn't approve that either."

Robert C. Doremus, chairman of the Detroit A.S.R.E. section, commented: "There's a lot of education to be done among architects. I've gone out on air conditioning jobs where architects have planned the location of refrigeration machinery under stairs and in other locations in direct violation of the code."

Mr. Rehard remarked that installers have lately been using too soft copper for refrigerant lines, and after Jan. 1 hard copper only will be permissible, unless the soft copper tubing is buried and placed in a satisfactory conduit.

"Manufacturers should acquaint themselves with the code," advised Mr. Mills. "With a few devices we have had some trouble in the past."

Mr. Gage at this point was reminded that "every once in a while we find someone installing a frangible disc above the safety valve. It must be installed below the valve and be set to break at 90% of the safety valve's setting."

To aid in servicing two safety valves may be employed, provided they are connected to a three-way valve, Mr. Gage pointed out. This permits one safety valve to be cut out of the system while simultaneously bringing the second valve into the circuit.

## Workers 'Test' First Beer Dispensers



Return of production of the R. Perlick Brass Co. (Milwaukee) line of direct draw beer dispensers was recently celebrated by the company's workers. Still working on back orders, Perlick is presently limiting production to the standard two and three half-barrel models.



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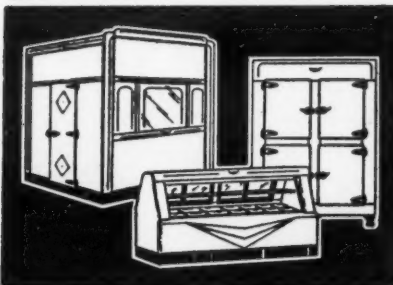
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# There's No Doubt of Television's Future Despite Today's Obstacles, Experts Say

By Ross Potter

CHICAGO—What television and frequency modulation will be doing next year, and in the next five years to come, were described to the International Association of Electrical Leagues at their tenth annual conference in Chicago recently.

Seymour Mintz, advertising director for Admiral Corp., and A. H. Brolly, chief engineer of Chicago's radio station WBKB, gave long range surveys showing that both these projections of radio will go through an extensive teething period before they are ready to take a bite into the consumer market.

Each man after his talk took on a question and answer session that revealed the direction of the interest of his audience, comprised of 50 executive officers and key men from electrical leagues throughout this country and Canada.

## TWO GREAT OBSTACLES

"Television broadcasting has two great obstacles to clear before it can hit its stride," said Mr. Mintz.

"The first of these is mechanical. Television broadcasting follows a straight line; its effective radius is no farther than the distance from the top of the transmitter to the immediate horizon.

"If you raise a transmitter tower 500 ft. high, you can get a radius of 55 miles, no more. If you can rig one 600 ft. high, you can reach perhaps 70 miles. That's about the

limit, and it isn't very far.

"The second obstacle is one that time and natural growth will work out—the small number, so far, of transmitting stations, television receivers, experienced personnel, and advertising contracts. They're all part of the process of growing up."

Several methods are under trial to solve the line-of-sight limitation, Mr. Mintz disclosed. Television systems could be relayed from station to station across the country. Or the programs might be carried by wire, with booster stations to kick them along. Or by "stratovision," in which planes 30,000 ft. up, giving them a 200-mile radius, could pick up the programs in turn and pass them along.

## COST PROHIBITIVE FOR SERIES OF STATIONS

Each of these faces further research, however, he stated. The cost of a succession of stations could be prohibitive. A tower 200 ft. high will cover everything within 15 miles—but one of these every 30 miles across the country would mean a considerable investment. Even so, such a system is now being tried between New York and Boston.

Special wire is needed for relaying by wire, a coaxial cable tubing of copper half as wide as a dime, with a heavy copper wire inside that will conduct 480 simultaneous telephone conversations—or one television program. Coaxial cable is still in the development stage, but a relay system using one is now being tested between New York and Washington, D. C.

The stratovision circuit has been given wide publicity, and certainly it is a startling idea, but it still has yet to be tested. Storms, mechanical difficulties, and untried difficulties are ahead of it, also. Like the others, it may be the answer.

## SUSTAINING PROGRAMS

For sustaining programs, of course, these obstacles are not so complex, Mr. Mintz pointed out. The broadcasting troupes can be made mobile, or the television films can be run off in multiple and used simultaneously in as many stations as desired.

"The matter of growth can't be pushed—there are too many arms and legs that have to grow, too," he said in detailing the second major aspect of television's development.

"At present only six cities have television stations—New York, Chicago, Philadelphia, Los Angeles, Washington, D. C., and Schenectady, N. Y. Their broadcasts are within reach of 22 million people, but so far only 7,500 television receivers are in use.

"It takes a lot of money and a lot of time and planning to install a television station of the size warranted by a big city," he continued. "Production facilities are still delayed by a shortage of materials and parts.

## PRODUCTION DELAYED

"The same thing, of course, is true of television receivers, which

require condensers and loudspeakers and electronic tubes. But the regular AM receiver now in such demand also needs these parts, and because there is such an immediate market for regular radios, they logically will get the parts first."

Television sets have not yet been turned out on a mass production basis, Mr. Mintz explained, which really sums up the entire score. There are still bugs to be worked out of effective transmission and reception. These unalterably will take time.

The same thing was true of radio 20 years ago, he illustrated. A good receiving set cost \$400 then; a comparably good set today costs \$150. Television receivers also are high: \$300-\$500. They, too, will come down.

The experienced personnel needed will come largely from Hollywood, he believed—cameramen, actors (for television will not allow working from scripts), makeup men, and all the props of a film production.

All these things must precede the big advertising contracts that will make television a self-sustaining and profitable business. And the absence of plenty of money, while it will not defeat television's progress, he said, will nevertheless slow it down to going along on its own.

## SUCCESS IS DEFINITE

But of television's success Mr. Mintz had no misgivings. Nothing else will equal television's reporting of major sports events, of catastrophes, or happenings of national importance.

"Institutional sponsors may have to stick to institutional advertising, but for a sponsor with something to show it will be not only dramatic and colorful but also convincing—his product will be shown in action, overcoming competition, doing its job, and if he wishes, surrounded by 100 beautiful girls!

"Department stores already have used television to transmit fashion shows throughout their main traffic departments. The entertainment world is another natural.

"These users of television will be the ones who make everyday people familiar with it, and sell them on it. And until millions of receivers are in people's homes, television broadcasting cannot reach its peak.

"Meanwhile the other necessary improvements will be going on—progress in the cathode tubes used, and on the projection screens that promise to replace direct view screens in a few years."

## QUESTIONS AND ANSWERS ON TELEVISION

A number of questions followed Mr. Mintz's talk, and he and Mr. Brolly between them answered these as follows:

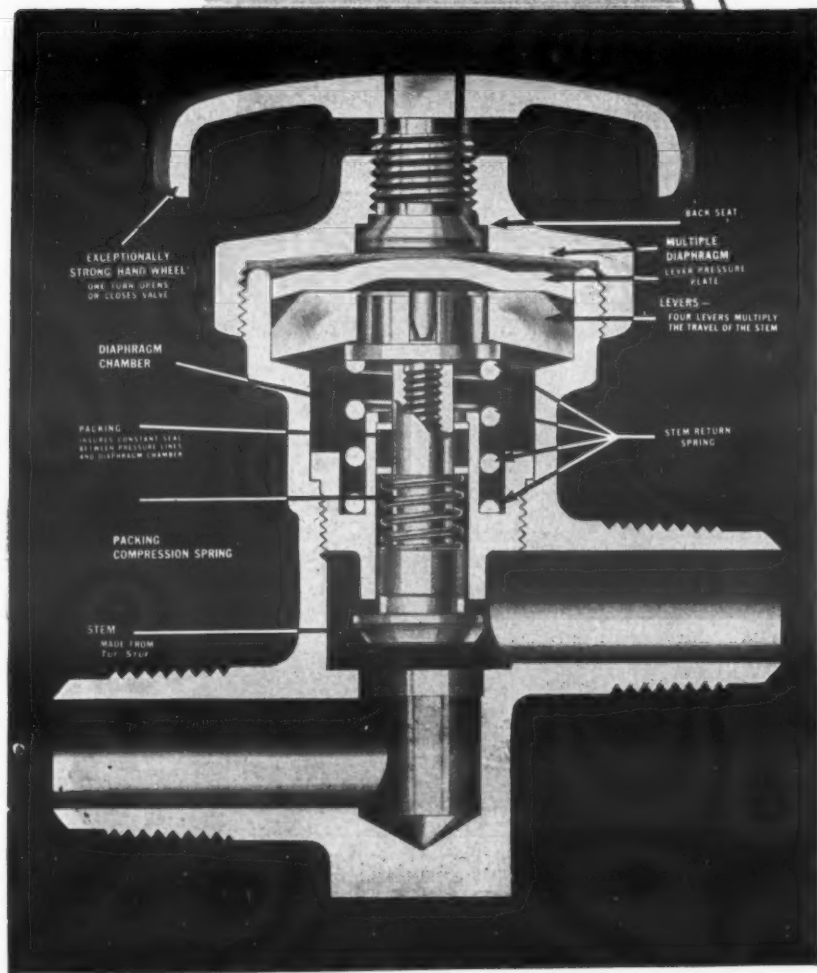
W. G. Hills, managing director of the Electric Institute of Washington, D. C.: Does that mean that extensive tryouts with sets being bought by consumers is still ahead?

Mr. Mintz: If you mean will these improvements come so fast as to obsolete a set in your own home, the

(Concluded on next page)

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## Growth of FM Radio Assured

(Concluded from preceding page)

answer is no. That will take years. But installation even in a private home will be an expensive investment for some years to come.

A television antenna, for instance, must be high, high enough to be above the level of trees or buildings or any other physical interruption.

Ralph G. Morrison, president of Essex Electrical League, Newark, N. J.: Should any special type of cable or antenna be installed in houses now being built, in anticipation of television coming in later?

Mr. Brolly: It's enough if you install ducts for cables. Allow for cables half an inch in diameter. For apartment buildings or duplex homes, allow for multiple cables. The maximum will be probably 300 watts.

Carl H. Christine, manager of the St. Louis Electrical Board of Trade: How can you look ahead and tell just where in any one room a woman is going to want to put her television receiver? How can you locate your ducts in light of that?

Mr. Brolly: As long as your duct runs from attic to cellar, it really doesn't make any difference. It is simply to route it anywhere on a given floor.

### NO CHANGE NEEDED IN HOUSE WIRING

A. A. Gray, manager of Chicago's Electric Association: You mean television will require power outlets and insulation no different from those used for anything else in the home?

Mr. Mintz: That's right. The same outlets, the same wiring—No. 14, with five amperes a safe load maximum to plan for.

Mr. Hills: How about color television. Will that develop as fast as regular television?

Mr. Mintz: That's a different process, but it will come along right beside the black and white reproduction.

O. C. Small, secretary of the International Association: What is the outlook on distribution and selling of television receivers?

Mr. Mintz: They will be handled through the same channels as radio. And the necessary antenna will be included in the purchase price.

Mr. Small: What about training for television service men?

Mr. Brolly: I would say that veterans trained in radar and high frequency work will be the best candidates for television servicing. Manufacturers probably will set up the service and repair schools.

### PLANS FOR FM

Mr. Brolly's talk on frequency modulation was brief and statistical.

"Frequency modulation, unlike television, is in distinct competition to amplitude modulation, the regular radio we use now. It is in effect an improved transmission of the same programs we listen to every day.

"As such, FM transmission has a harder row to hoe. For AM radio is established; it's a habit. It has 1,200 transmitting stations across the country, and 50 million receivers.

"There is a big market for the radios we are used to—the millions of sets that weren't bought during the war. For that reason, FM is going to suffer to a greater length the same delay that television will

temporarily—all the parts that can be manufactured will go into sets that can be sold immediately, without further research or improvements: AM receivers.

"And technically, FM still has a long way to go. And the cost for FM sets at first will seem awfully high. I wouldn't guess how the complete price scale will run, but there won't be any sets for \$9.95.

"Actually, though, the coming of FM is inevitable. It will take a long time, but gradually it will replace AM transmission. And eventually its home receivers probably will be cheaper—and certainly a lot better—than your inexpensive sets are today.

"Manmade static can blur FM reception, but the filters they have developed during the war will take care of that. As for natural static, you get perfect reception with an FM set under conditions that would be impossible with the radio in your home today.

"FM operates on a high and consistent frequency that eliminates fading and static. AM radio operates within frequencies between 500 and 2,000 cycles, or  $\frac{1}{2}$  and 2 megacycles. FM is up between 88 and 158 megacycles. And because FM ranges are constant, many more are accessible.

"Like television, FM transmission also is in its infancy. It will call for a new school of technicians, because circuits at 100 megacycles are altogether in action and treatment from a circuit at one megacycle. And, like television, its technicians will come largely from the men who have been operating high frequency equipment in the armed forces. You have to know a little something about plumbing, too.

### SOME CHANGES NEEDED TO USE FM SETS

"Antennas will be different, a new kind of lead-in wire will have to be developed, and better cables for transmission. But in spite of these problems ahead, FM will replace AM because it seems to work out that, whatever the engineer can conceive in improved performance, the production expert can turn out.

"There is, of course, much more room in the higher frequencies, most of all because the constancy allows more usable wave lengths within any given area. That means more stations can be licensed—100 already have been assigned, and the Federal Communications Commission has released construction permits for 600 more.

"More stations will mean lower transmission costs and less expensive radio time. More stations also will mean more receivers, so they will cost less, too. And the inexpensive FM receiver will give you program reception you would have to pay \$150 for today."

Mr. Christine: Aside from the promotional end, how much difference is there between good AM and good FM reception?

Mr. Brolly: When conditions for AM reception are perfect, and you have a good set, the difference is zero. But perfect AM reception is possible in only a few places in the United States, and there is no place where the weather is good all of the time; those are the odds.

One thing to consider is that most people themselves cannot catch perfect reception. The figures show that 80% of our own citizens have sufficiently little acuteness of hearing that only 30% of FM's improvements will get through to them.

F. N. Wolf, of the Nebraska-Iowa Electrical Council, Omaha: Is the range for FM transmission the same day or night?

Mr. Brolly: Generally, yes. Most FM stations use direct ray broadcasting, with the tallest stations reaching out to a 100 mile radius, and the average station (with a 500 ft. transmitter), having a range a little more than 50 miles.

### SIZES OF RECEIVERS

H. M. Silling, acting secretary of the Electrical League of Charleston, W. Va.: Will FM sets be made in all sized models?

Mr. Brolly: I would think so. Size is no factor in the reception.

Ronald T. King, secretary of the Central Jersey Electrical League, Trenton, N. J.: About how many FM receivers are in use now?

Mr. Brolly: Probably half a million.

John A. Morrison, managing director of Philadelphia's Electrical Association: Are different types of receivers necessary to receive AM and FM transmissions? It seems to me I've heard of one set for both.

Mr. Brolly: That is true only when a cabinet has the essential components for the two sets. You have a switch in a set like that, to have AM or FM. Actually, it takes two sets.

### HOW MANY CHANNELS?

W. P. Robinson, of the Passaic County Electrical League, Paterson, N. J.: How many transmission channels are there for AM and FM?

Mr. Brolly: I believe AM has 106 channels. A few of them have only one strong station, but most of them have smaller stations on the same frequency when those stations are so far apart that they can't jam each other. There are over 900 AM stations on the 106 channels.

FM transmission has room for several thousand stations. There are only 100 channels here, but they can be shared by many stations without confusion.

### Attention Manufacturers

We build freezers and boxes to your specifications on sub-contract basis, all inquiries kept confidential.

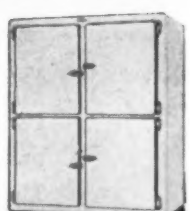
Box 1871, Air Conditioning & Refrigeration News

# HUSSMANN Refrigeration

## GIVES BETTER SERVICE BECAUSE IT'S BUILT BY Refrigeration Specialists!



HUSSMANN Refrigeration Equipment is dependable and efficient because it embodies the abilities and experience of more than 35 years devoted exclusively to this single, specialized field. Write today for more facts about HUSSMANN.



**HUSSMANN**  
REFRIGERATION, INC.

ST. LOUIS 6, MO.

### Prevues of Our 1946 CATALOG

Will Be Released Sometime in March

Featuring a Complete Line of

Refrigeration Units,

Parts & Supplies

Electric Motors and Motor Parts

BRUNNER-KELVINATOR

Condensing Units

HERMETIC Units and Parts

LYONS-Metal Shop Equipment

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Write for your copy today

Wholesale Only

**SERVICE PARTS CO.**

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## WANTED

Well-known manufacturer of refrigerating and air conditioning products has openings for the following:

**DESIGNERS AND APPLICATION ENGINEERS**—Should be experienced in the industry.

**DRAFTSMEN**—Experience in the industry not essential.

**METHODS ENGINEERS AND ESTIMATORS**—Experienced in the stamping, forming, cutting and assembling of metal components. Excellent opportunity for permanent connection. Location Chicago. Give complete details of your experience, salary expected and when available.

Box 1887, Air Conditioning & Refrigeration News

## SALUTE TO THE WEST

This important, growing frontier is doing a magnificent job.

Keeping pace with the growing West is the California Refrigerator Co., of San Francisco and Oakland California, progressive jobbers in refrigeration and air conditioning supplies, replacement parts, equipment and tools.

Outstanding, indeed, is this company's record of long experience and dependability as an efficient source of supply, both for the present armed forces and the civilian trade. In this day of unprecedented distribution problems, concentrated and intelligent effort is doing an important job—for today and tomorrow.

# CALIFORNIA REFRIGERATOR CO.

Clarence F. (Sandy) Pratt, President  
1077 Mission St., San Francisco, Calif.  
441-23rd St., Oakland, California

"EVERYTHING FOR REFRIGERATION"



The

# Breakfast

IT TOASTS AS IT COOKS!



Just attach The Breakfast Maker to any 60 cycle, 110 volt AC or DC outlet and it's ready for instant use.



Top plate is ideal for frying meat, fish, eggs or potatoes, cooking vegetables, heating soup, etc.



Makes delicious, piping-hot toast, toasted cheese or open-face sandwiches.

A "sales natural" for every home, apartment, or college dorm—for a quick breakfast, a regular meal, or an off-hour snack. Makes golden-brown toast in the convenient pull-out compartment, while the top plate is being used for frying, cooking, making tea or brewing coffee. Sturdily built for years of service. Completely covered heating element. Retail at \$12.95.

RETAIL PRICE  
**\$12.95**

CALKINS APPLIANCE CO.  
NILES, MICHIGAN

On display at Housewares Show  
Booth 3, 4th Floor • PALMER HOUSE  
FURNITURE SHOW  
Room 48, 17th Floor • FURNITURE MART

NOW IN PRODUCTION! ORDER TODAY!



Freon Condensers • Dry-Ex Water Coolers  
• Evaporative Condensers • Forced Con-  
vection Units • Oil Separators • Liquid  
Receivers • Heat Exchangers • Pipe  
Coils • Hi-Peak Water Coolers • Flooded  
Water Coolers • Ammonia Condensers  
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**ACME INDUSTRIES**  
JACKSON, MICHIGAN  
Offices in principal cities

**R<sub>x</sub>** for 1946

**THAWZONE**  
PATENTED  
The PIONEER FLUID DEHYDRANT

**TRACE**  
REFRIGERANT  
LEAK DETECTOR

1. New or reconditioned units, before starting up, should have TZ for those tiny amounts that even careful workmanship cannot always avoid. TZ destroys them promptly and stays to prevent future trouble.
2. Systems now operating perfectly need TZ now to prevent future moisture. It's economical insurance.
3. Units kicking up from moisture have been treated with TZ by engineers for eight years. It's still good practice.

Add TRACE at any time to any refrigeration unit containing any refrigerant to:

1. Find present leaks.
2. Spot future leaks.
3. Locate the source (leaks) of moisture troubles.

TRACE has that vivid, stay-red color. Caution: No color, no leak detection!

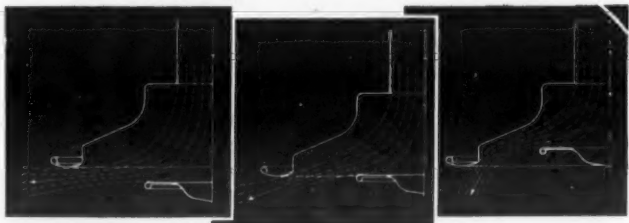
The T twins are congenial companions in refrigeration systems

**HIGHSIDE CHEMICALS COMPANY**  
195 Verona Ave., NEWARK 4, N. J.

## How adjustable air diffusers increase the efficiency of supply air diffusion.

Better mixing of room and supply air, more uniform temperatures throughout the occupied zone and noiseless, draftless air diffusion are accomplished with

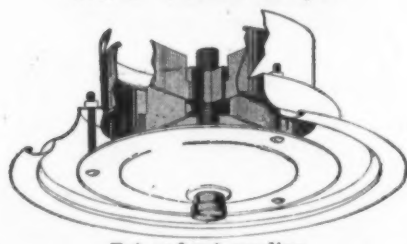
**KNO-DRAFT adjustable Diffusers**



Any desired angle from verticle to horizontal at your fingertip.

By simply turning the air adjustment screws (easily accessible from under the unit) the inner cone of any KNO-DRAFT Diffuser may be raised or lowered to secure any angle of air direction required by ceiling heights, system balancing, and individual or seasonal requirements. Thus the diffuser becomes more effective whether it is used in cooling, heating, ventilating, or combined systems, because it can expel chilled air parallel to the ceiling or eject heated air downward to prevent stratification.

**Type K Adjustable Diffuser with D Volume damper.**



Pat. and pat. pending

**W. B. CONNOR ENGINEERING CORPORATION**

AIR RECOVERY

AIR PURIFICATION

AIR DIFFUSION

112 EAST 32ND STREET

NEW YORK 16, N. Y.

Any desired volume at your fingertip  
Every KNO-DRAFT Diffuser can be equipped with a built-in volume damper (easily adjusted by hand-turning knob under diffuser) which varies the outlet aperture uniformly without affecting the outlet velocity or diffusion pattern.

Thus KNO-DRAFT Diffusers can be adjusted quickly and accurately to the angle and volume needed to meet a wide variety of conditions, and as a result, the factors of temperature variation, temperature fluctuation, drafts and noise can be minimized considerably.

The W. B. Connor Engineering Corp. maintains a staff of specialists and district representatives in leading cities to assist you with any air distribution problem.

### FREE HANDBOOK

Contains clear sketches, charts, dimension prints and instructive text that simplify the selection and installation of air diffusers.

For your copy write Dept. A-10.

## World Trade News: Several Countries Getting New Refrigeration Plants

### Factory for Colombia

CALI, Colombia, S. A.—Plans for construction of a factory for the manufacture of commercial refrigeration equipment, transfer of its main offices to Bogota, and expansion of its branches and agencies are now being worked out by Frio-Lux Colombia Ltda., South American Frigidaire distributor.

Frio-Lux announced that it has already signed a contract for construction of the first unit of the factory, to be erected in Pereira. A complete line of standard commercial cabinets, special commercial and industrial models, and insulation, doors, and accessories for built-in refrigerators will be manufactured there, the company said.

The first unit, to cover 30,780 sq. ft., will be built of brick and will have an asbestos tile roof. Future extensions are provided for by an adjoining tract of land measuring 71,220 sq. ft.

At the same time manufacturing activities are moved from Cali to Pereira, the main offices will be transferred to Bogota, where a branch office is already established.

The expansion program also calls for opening before Jan. 1 of company owned branches in Barranquilla and Bucaramanga to supplement a branch in Medellin and sales offices in Bogota, Pereira, and Cali. Through these branches, Frio-Lux said it operates seven agencies and intends to appoint 11 more as soon as supplies are available for stocking stores.

Frio-Lux affiliates have been set up in Chile, Peru, and Ecuador.

In addition to the Frigidaire distributorship, Frio-Lux represents Ilg Electric Ventilating Co., Creamery Package Mfg. Co., and other large manufacturers.

### And One for Argentina

DETROIT—Darkel, S. A., a new company just enfranchised by Nash-Kelvinator Corp., will construct a plant in Buenos Aires for the fabrication of Kelvinator products destined for distribution throughout Argentina, it was announced by George W. Mason, president of the corporation.

The new company, capitalized for two million pesos, was organized by a group described as "leading Argentine business men." The franchise was signed here by R. J. Hermitte, general sales manager of Darkel.

E. H. Wilcox, Kelvinator export manager, said the new assembly plant will produce refrigerator cabinets and a complete commercial refrigeration line, in addition to ranges and other household appliances. Mr. Wilcox, who returned recently from Buenos Aires, made a study of the postwar Argentine market which he described as "ample."

"This is especially true now since imports of refrigeration equipment have been paralyzed as a result of the war," he declared.

T. L. Lagos, chief engineer of the new company, is now studying production practices in Kelvinator's Michigan plants.

### Another in China

NEW YORK CITY—Westinghouse Electric International Corp. announces that it has signed a contract with the Chinese National Research Commission to design and supply technical assistance for a \$40,000,000 plant to be built in China.

### Egyptians Want Plants

CAIRO—Some Egyptians would like to see their country become the manufacturing center and distribution point for air conditioning, refrigerating, and other electrical equipment. Inquiries have been received by the Department of Commerce regarding possible establishment of branch plants of U. S. electrical manufacturers in Egypt.

### And Also South Africa

CAPETOWN, South Africa—Construction will start soon in the Union of South Africa on a factory to employ an estimated 5,000 workers for the manufacture of electrical goods, including refrigerators, washing machines, and radios. The project, reported by an African publication, is expected to cover most of a 45-acre tract of land already acquired.

### Canadian Washers in Brazil

BRAZIL—Electric household washing machines of Canadian manufacture have appeared on display in several retail stores in Brazil, according to a report from the U. S. Embassy in Rio de Janeiro. The embassy said it understood the washers have been placed on consignment to develop trade.

Vacuum cleaners and sewing machines were among merchandise arriving in Brazil from Sweden this autumn, the report also said.

### U. S. Appliances Sought

WASHINGTON, D. C.—Contacts with an eye to the purchase, manufacture, distribution, or sales representation of household appliances and other electrical equipment have been made in the U. S. during the past two months by firms in 17 foreign countries—including two concerns in Iceland who want refrigerating units.

By the number of business establishments who have made inquiries to the Department of Commerce, or sent representatives to this country, Belgium has shown the most interest with 12 firms attempting to tap the American market. Next comes South Africa with five, and then Palestine and Portugal with three each.

Brazil, Egypt, France, Iceland, and Mexico have two concerns interested in U. S. appliance deals. Australia, Canada, Costa Rica, Cuba, Liberia, Panama, Syria, and Turkey have one each, according to the Department of Commerce list.

### New Plant for Chile

CHILE — Approximately \$338,700 has been allotted for constructing and equipping a new three-story refrigerating plant, 120 meters long and 37 meters wide, at Talcahuano.

### Rolston Goes to Mexico

MEXICO CITY—W. S. Rolston recently joined H. Steele Y Cia here where he will have charge of all procurement and technical activities in the Major Appliance and Radio Department. Mr. Rolston was formerly export product manager for the Crosley Corp.

The company has completed arrangements with a radio and a refrigeration manufacturer for production of radios and refrigerators under the company brand name of "Haste." They expect to make similar arrangements for other major appliances in the near future.

### Resumes Export Program

LOS ANGELES — Resumption of Utility Appliance Corp.'s prewar export program was recently inaugurated when Perry Girton, owner of the Costa Rica Broadcasting Co. and radio station GIPG in San Jose, placed an order for blowers and fans.

It was Utility's first official post-war order for overseas shipment, according to Bernard Harris, sales manager.

Mr. Girton's firm distributes major appliances throughout Central America. Bruce & Co., a Honolulu distributing firm, was one of the first Utility accounts to return by ordering blowers and fans for the Hawaiian Islands, Mr. Harris said.

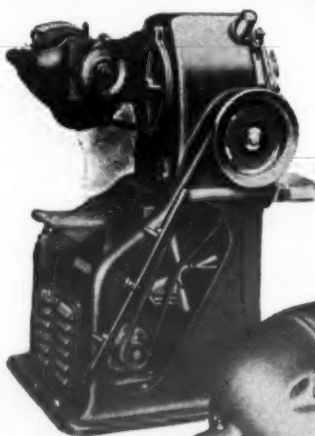
**Thank You!**

AIRO sincerely appreciates the loyal patronage and friendly cooperation given us by our customers and suppliers, alike, through the turbulent war years.

Now, at the beginning of a peaceful and productive era, we wish our many friends in the trade a most prosperous new year.

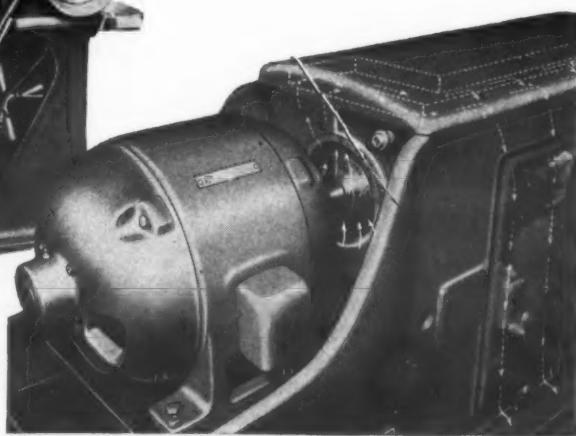
**AIRO SUPPLY CO. (NOT INC.)**  
WHOLESALE ONLY  
2732 N. Ashland Ave., Dept. B  
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## BEHIND THE SCENE there's a Torrington Air Impeller



A large hydraulic drilling machine which utilizes a Torrington blower wheel for cooling the hydraulic control panel.

An automatic precision nut tapping machine, with a Torrington fan for cooling.



Courtesy of Barnes Drill Co.

### High Speed Machine Tools Utilize Forced Air for Cooling

Modern machine tools using hydraulic systems or liquid coolants are another field in which application of Torrington Air Impellers is proving beneficial. Higher operating efficiency and longer life result from the use of Torrington Airstocrat propeller fan blades and Airtor blower wheels in this important field.

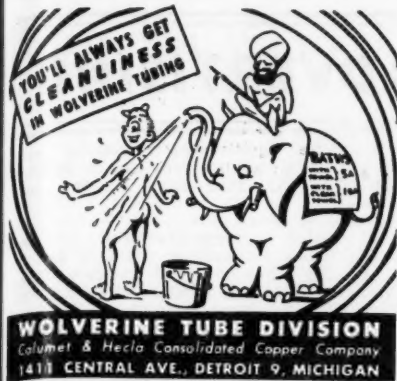
Use our Air Impeller Specification Sheet for a preliminary appraisal of your air impelling needs, for any type of product. Then submit the data for the recommendation of our experienced engineering staff.



**THE TORRINGTON**  
MANUFACTURING COMPANY, TORRINGTON, CONN.

*Air Impellers for Every Purpose*





**WOLVERINE TUBE DIVISION**  
Columet & Hecla Consolidated Copper Company  
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**NIAGARA**  
"NO-FROST" METHOD  
WITH SPRAY COOLERS  
... gives always full capacity because there is no interruption for defrosting at sub-zero temperatures; protects quality in foods.  
**NIAGARA BLOWER COMPANY**  
25 Years of Service in Air Engineering  
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**LA CROSSE**  
Manufacturers of  
COMMERCIAL  
REFRIGERATION  
Look for the LA CROSSE  
emblem for Assurance  
of Quality and Performance.  
Walk-In, Beer Dispensing  
and Beverage Coolers  
BLUE RIBBON FARM MILK COOLERS  
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La Crosse, Wisconsin

**NIBCO WROT**  
AND CAST  
VALVES AND FITTINGS  
for Refrigeration  
**NORTHERN INDIANA BRASS CO.**  
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**AMANA**  
Commercial  
REFRIGERATION  
MODERN  
• DISPLAY CASES  
• COOLERS  
• REFRIGERATORS  
• HOME FREEZERS  
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**REFRIGERATION**  
by **CURTIS**  
Write for  
complete  
information.  
Bulletins C-14-M,  
C-58, C-68-C  
**CURTIS REFRIGERATING MACHINE DIVISION**  
of Curtis Manufacturing Company  
1012 Klenon Avenue • St. Louis 20, Mo.

**Says GASKET JOE**  
COMPRESSORS FIXED  
THE SEALS ARE TIGHT,  
ANOTHER BOX IS  
ALMOST RIGHT.  
AND YET, MY FRIENDS,  
THERE'S SOMETHING MORE.  
BEFORE YOU'RE SURE  
YOUR JOB IS PAT  
YOU'VE GOT TO TAKE  
A GANDER AT  
THE GASKET  
ON THE  
COOLER  
DOOR

**JARROW PRODUCTS**  
420 N. LA SALLE ST., CHICAGO 10, ILLINOIS



**HOWARD L. CLARY**  
New assistant general sales manager for Norge.

## Norge Promotes--

(Concluded from Page 1, Column 4)  
refrigeration sales manager, has been named merchandise manager to correlate "the activities of all product sales managers," said Mr. O'Harra. He has been with Norge since 1934. No successor as household refrigerator sales manager has been announced as yet.

Mr. MacMahon, who has been successively a salesman, regional manager, product manager, eastern sales manager, and advertising manager for Norge, has been appointed director of advertising and public relations. He will be in general charge of advertising, sales promotion, sales training, publicity, and public relations.

Mr. Redden recently joined Norge as manager of sales training, and has now been named to succeed Mr. Clary as manager of sales promotion. He came to Norge after 20 years' experience in sales promotion and sales training with large corporations and advertising agencies.

## Union Rejects--

(Concluded from Page 1, Column 5)  
vices, lamps, wiring devices, and similar related products.

"Therefore a break in the production of the products of this company would at a very early date force work stoppages for a very large segment of industry.

"It has been the company's declared policy to maintain prices of its products at approximately the prewar level," continued Mr. Wilson. "On a weighted average of dollar volume, it is estimated that present prices of the company's products are not more than 2% to 3% higher than prewar, even though the average prices of all products and services have increased 33% during this same period, as stated by the government.

"Four months ago, raw materials and purchased components were approximately 7% higher, on the average, than prewar. Since then, steadily increasing prices from our suppliers indicate that by mid-year 1946, the purchased material and components will represent an increase over prewar of approximately 11%.

"Now if this additional wage increase of 10% is added to the earlier 30% advance in wage rates the total advance is more than 40% in labor rates since January, 1941."

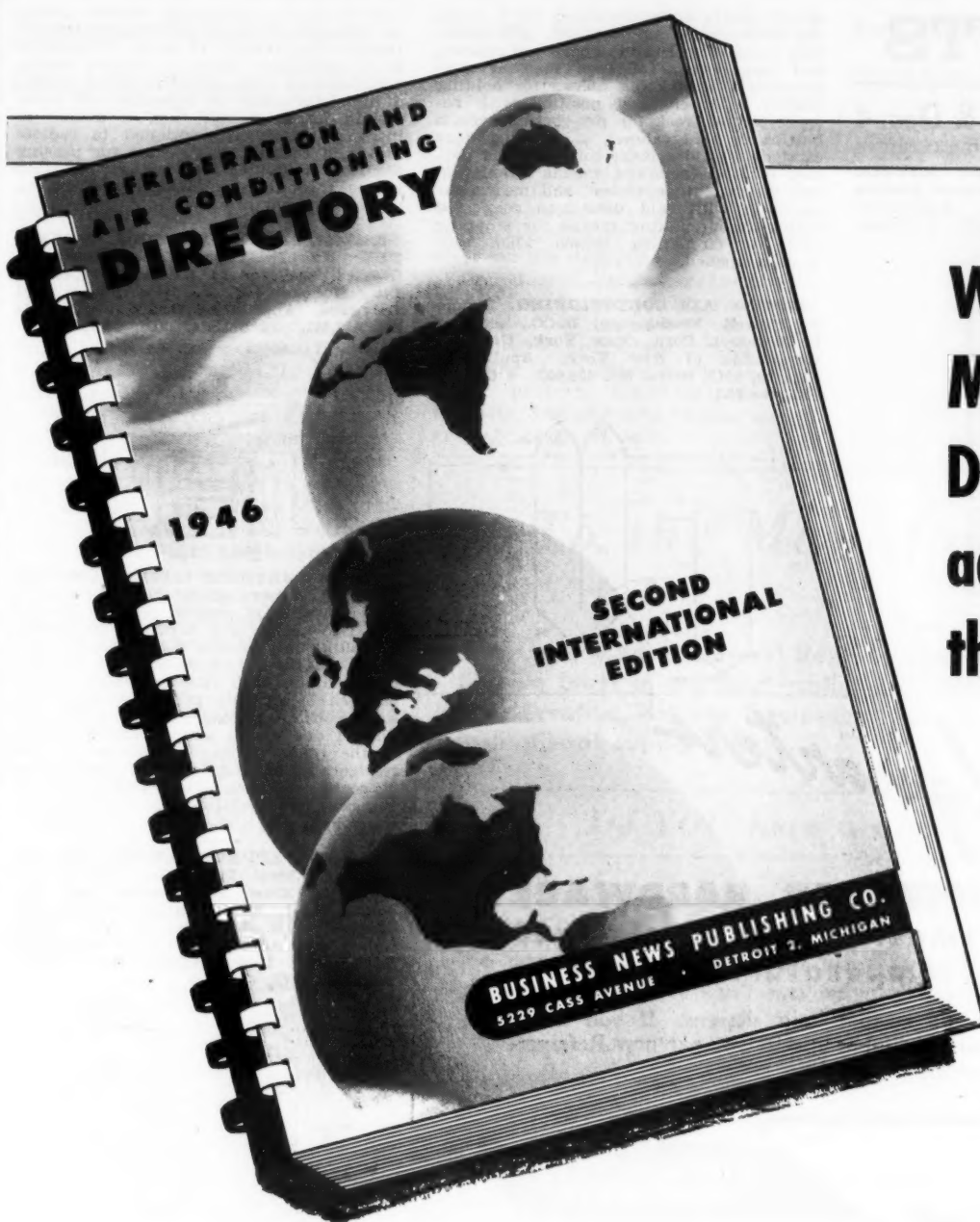
In its letter rejecting the G-E offer, the union declared that the offer was not adequate to meet the needs of G-E employees, whose wages, claims the union, have been cut more than 50%, and was less than the 13.5 cent hourly increase offered by the electrical division of General Motors, which the union likewise refused.

**In the West it's**  
**REFRIGERATION SERVICE INC.**  
Pacific Coast Supply Jobber  
since 1928

Your letterhead will bring our latest  
catalog—also our House Organ,

"The Liquid Line"

**3109 Beverly Blvd.**  
**LOS ANGELES 4, CALIF.**



Why use  
**MORE**  
Directory  
advertising  
this year  
?

## because:

### 1. There are so many new buyers.

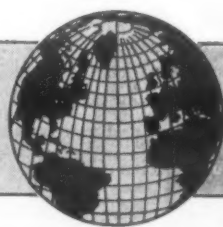
Many new companies have begun the assembly and distribution of home and farm freezers and unit air conditioners. Men returning from military service are setting up new dealerships and service companies. Old employees are using war-years incomes to start out "on their own."

### 2. There have been so many changes in personnel.

Even your old customers may not always know you; many a distributor and dealer has reorganized and enlarged his staff to go after postwar business, and to hold your old customers while you are winning new ones, you have got to know the man in the purchasing seat—and to see to it that he knows you. New personnel means possible new buying contacts.

### 3. It's a great Reborn Industry.

A new industry may be comparatively small for a big advertising effort. An old industry may have such stable buying contacts that they are near-impossible to shake. But in this great REBORN industry there are lots of buyers this year, new faces and old faces in new places, anxious buyers with a VITAL interest in WHO CAN SUPPLY WHAT, establishing and re-establishing themselves with the help of every scrap of buying guidance they can find. They need and want information. They want the whole story. You can keep your company, your products, your sales appeal, continually before them during the coming months with catalog advertising in the Refrigeration and Air Conditioning Directory.



2ND INTERNATIONAL EDITION—1946

**Refrigeration and**  
**Air Conditioning Directory**

BUSINESS NEWS PUBLISHING CO. • DETROIT, MICH.

IF IT IS MASS CIRCULATION YOU WANT—HERE IT IS  
**GUARANTEED 28,000 COPIES**



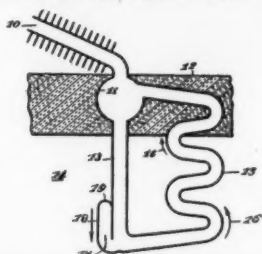




# Patents (Con't)

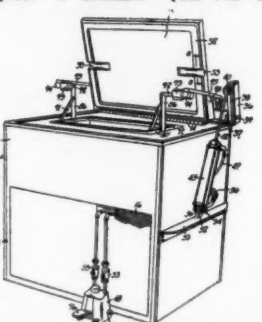
(Concluded from preceding page)

for the gravity flow of refrigerant liquid from the bottom of said receptacle, an upwardly extending evaporator coil in open fluid communication at its lower end with the lower portion of said down-pipe and in open communication at its upper end with the upper portion of said receptacle, and an upwardly extending conduit closed at its upper end and in open communication at its lower end with the lower portion of said down-pipe, said conduit being constructed and arranged



to provide an auxiliary zone of evaporation exteriorly of said evaporator coil, the lower open end of said conduit being sealed by liquid in said down-pipe, and the vapor formed in said conduit periodically breaking the seal to pass as a volume of free vapor into said evaporator coil.

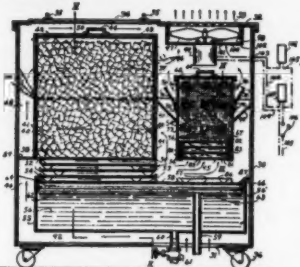
**1,390,030. CHILLING CABINET.** Theodore R. Paulson, South Bend, Ind., assignor to Mid West Sales & Service, Inc., South Bend, Ind., a corporation of Indiana. Application Jan. 12, 1942, Serial No. 426,387. 8 Claims. (Cl. 312-174.)



1. A chilling cabinet comprising a container having an opening in its top, a closure pivoted to said container to span said opening, a work holder in said container, an elongated arm pivoted to said container and to said work holder and a cam carried by said closure and engageable with said arm to elevate said arm

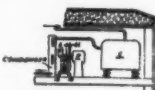
and work holder when said closure is opened, said cam being spaced from said arm when said closure is closed.

**2,390,104. COOLING AND DEHYDRATING APPARATUS.** Hiram Joseph Kaufman, Detroit, Mich. Application Feb. 23, 1942, Serial No. 432,014. 4 Claims. (Cl. 183-4.3.)



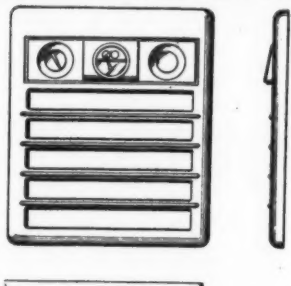
1. Apparatus for conditioning the air in an enclosed space by recirculation of air through the apparatus comprising a casing having an air inlet in the lower part thereof and having an air outlet in the upper part, means within the casing for forcing circulation of a stream of air from the space into the casing through the inlet opening and discharging the stream through the outlet opening, an ice container within the casing having openings for dripping discharge of water from melting ice, partition structure near the intake opening directing the air drawn into the casing through said intake opening through the dripping ice water, a dehydrant container for hygroscopic material within the casing, and partition walls within the casing dividing the air stream after passing through the dripping ice water and directing one division through the ice container in heat exchange relation with the ice in the container and the other division through the dehydrant container in contact with the hygroscopic material in the course of flow of the air to the discharge opening.

**2,390,182. REFRIGERATOR EQUIPPED WITH A MOTOR-DRIVEN REFRIGERATING APPARATUS OF THE COMPRESSION TYPE.** Hans Schirrmelster, Berlin-Siemensstadt, Germany; vested in the Alien Property Custodian. Application May 23, 1940, Serial No. 336,692. In Germany March 31, 1939. 7 Claims. (Cl. 62-115.)



3. In an electric refrigerator, the combination of a cold-producing refrigerant circulation system including a compressor, an A.C. motor for actuating said compressor, said motor and said compressor forming a sealed unit, current supply means for connecting said motor with a D.C. supply circuit, including an inverting contact device inserted between said motor and said current supply means, and means including a second electromotor for cooling the refrigerant circulating in said system, said second motor being connected with said supply means and actuating said inverting contact device.

**143,060. DESIGN FOR A REFRIGERATOR PANEL.** William S. Connell, Norwood Park Township, Cook County, Ill., assignor to The Bastian-Blessing Co.,



Chicago, Ill., a corporation of Illinois. Application Dec. 2, 1944, Serial No. 116,673. Term of patent 7 years. (Cl. D67-3.)

## Frigidaire Building New Office for Kansas City

**NORTH KANSAS CITY**—Completion of a \$200,000 Frigidaire district office and warehouse now under construction here is expected by early spring. P. M. Bratten, general sales manager of the General Motors division, said in announcing the breaking of ground.

Providing approximately 45,000 sq. ft. of space, the new building will house the Kansas City district offices, sales, display and meeting rooms, a zone shop for sealed unit repair, a complete parts department, a commercial shop and warehouse facilities. The structure, to be 160 ft. by 280 ft., will serve the 180 Frigidaire dealers of the district.

Mr. Bratten said the building was necessitated by need for additional space to handle the increased variety and number of Frigidaire products soon to be on the market.

## Western Thermal Moves To Larger Quarters

**LOS ANGELES**—Change to larger quarters by Western Thermal Equipment Co., manufacturer of Visoleak leak detection fluid for refrigerant systems, is announced by G. B. Bloom, president.

The new location is at 1701 West Slauson Ave., Los Angeles 44. It provides desperately needed additional space to consolidate office, factory, warehouse, and shipping facilities in one location, and facilitate further expansion of the company. Production has been started on Visoleak charging sets, for injecting Visoleak or refrigerant oil into systems. Other specialty items for the refrigeration trade are planned for production in 1946.

The property, owned by Western Thermal Equipment Co. but unavailable to it until recently, due to occupation by other concerns producing war materials, includes office building and separate factory and warehouse, with 240 ft. frontage on Slauson Ave.

## G-E Ships First Burners From Bloomfield Plant

**BLOOMFIELD, N. J.**—Although reconversion of General Electric Co.'s air conditioning department plant here will not be completed until January, the first oil furnace boilers produced in more than three and a half years are already on their way to distributors throughout the country.

On a site not long ago used for the manufacture of vital parts of B-29's, production of the boilers by 1946 will reach a volume never before attained in the company's history, according to L. H. Hobson, sales manager for G-E's automatic heating division. Complete reconversion of the plant was necessary to take up boiler production from where it left off on April 30, 1942.

## Welch Plans Cold Storages For Grape Juice

**WESTFIELD, N. Y.**—The Welch Grape Juice Co. has registered a new stock issue with the Securities & Exchange Commission. Proceeds will be used for a plant expansion program, including adaptations of plants at Westfield and North East, Pa., and those in Michigan for cold storage of grape juice.

## Moxley New Product Head For Westinghouse Lines

**MANSFIELD**—M. M. Feaman, manager of the water heater and dishwasher department of the Westinghouse Electric Appliance Division, has announced the appointment of Gordon W. Moxley as product supervisor of his department.

Mr. Moxley, who has been with Westinghouse since 1929, will be responsible for the preparation and following of production schedules for all items in his department, including water heaters, dishwashers, sinks, cabinets, and the new "waste away" garbage disposer unit.

## Arctic Engineering Takes Howe Line In 4 States

**CHICAGO**—The recently organized Arctic Engineering Corp. has been appointed exclusive distributor in Illinois, Indiana, Wisconsin, and Michigan for Howe Ice Machine Co.

Arctic will also handle Gebhardt circulator units for the food industry and conduct a complete contracting and engineering service in the refrigeration and air conditioning field.

William W. Morgan, active in commercial and industrial refrigeration organizations for 26 years, heads the new firm. Clarence J. Freestone is chief engineer.

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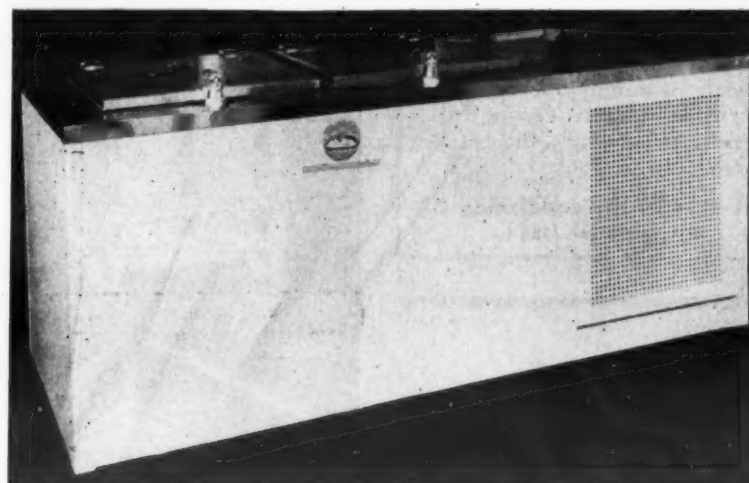
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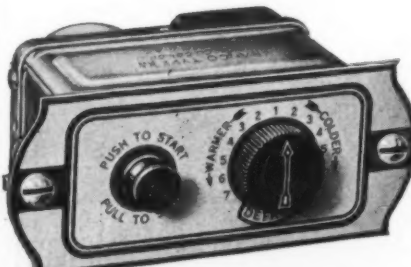
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## Interstate Aircraft Buys Revelation Co. Assets

EL SEGUNDO, Calif. — Interstate Aircraft & Engineering Corp. has purchased Revelation Co., of Los Angeles, and was to have been in full-scale production here Dec. 1 on Revelation electric water coolers and softeners.

Announcement of the transaction, which includes all Revelation's assets, business, and patents, was made by Don P. Smith, president of Interstate. Production of the appliances continued in Los Angeles while equipment, machinery, dies, small tools, and inventories were being moved here.

Mr. Smith said that Interstate is now accepting orders for immediate delivery of the coolers and softeners. Delivery will be made through the national and export sales distribution organization developed by Revelation, he stated, plus new domestic and export distribution sources now being established. He said Revelation's war-time export business included shipments to Panama, South America, Hawaii and the Far East, and to the Army and Navy.

Tentative plans were also announced by Mr. Smith for the manufacture of a complete line of cooling units for industrial and commercial uses. Other Interstate plans call for production of the established line of water cooler accessories, such as shelf bracket assemblies and pitcher and canteen fillers, as well as continuation of the development and manufacture of soft-drink vending machines, vacuum cleaners, refrigeration compressors, and gasoline motors.

In discussing acquisition of the Revelation Co., Mr. Smith said audited records showed a steady increase in sales volume since the firm began building coolers nearly 25 years ago.

"Sales were confined almost entirely to the line of electric water coolers," Mr. Smith explained, "for the water softener had been an engineering development over the

past four years and is just now perfected and ready for volume production."

Produced in sizes adaptable to every need, the coolers are described as designed to harmonize with the latest office and home furnishings. Interstate said the machines have a golden brown, hammer-tone finish of oven-baked synthetic enamel over a rust-proof priming coat; electrically welded and reinforced all-steel cabinets; and durable steel tops finished in white, acid-resisting, non-shattering enamel.

Exclusive Revelation designs said to be incorporated in the coolers are listed as the pre-cooler, the "Lo-Pressure" tank, and the cooling unit. The pre-cooler reduces the refrigeration unit's load by passing outgoing waste water over the incoming supply line, it is claimed, and the

"Lo-Pressure" tank is used on all one-bubbler models to eliminate flood danger.

The Revelation water softeners, designed to operate between 40 and 125 lbs. pressure a square inch and of capacities from 19,500 to 130,000 grains exchange, were described as incorporating a down-flow softening action and an up-flow regeneration action. The firm said the steel tanks, with flanged and dished heads, are electrically welded and pressure-tested to 200 lbs. a square inch.

"Softeners are available with either of two types of 'zeolite,' it was stated. 'A white zeolite is employed to correct hardness caused by dissolved lime and magnesium compounds, while the black zeolite is used to correct problem water containing iron or manganese, in addition to hardness.'"

## G-E To Manufacture Pepsi-Cola Coolers

BLOOMFIELD, N. J. — Beverage coolers of new postwar design and construction, and embodying the latest features in refrigeration and cooling will be produced for Pepsi-Cola Co. and its bottlers by General Electric's air conditioning department, according to a recent announcement by C. M. Rowland, G. E.'s manager of packaged cooling equipment sales.

The new Pepsi-Cola coolers, available to soft drink dealers, will be constructed in several sizes. The largest size will accommodate more than 11 cases of 12-ounce bottles, it was announced.

## Honest Distribution --

(Concluded from Page 1, Column 2) against established legitimate channels of trade by selling directly to dealers who carry no stock, furnish no service, and have a minimum investment" also will be fought by the committee.

Mr. Wolk, who is serving as acting chairman of the new committee, said it was expected that permanent officers will be elected at a meeting to be held Jan. 3 in Chicago at the Hotel Stevens.

Present members include representatives of McCurdy's, Rochester, N. Y.; Sibley, Lindsay & Curr Co., Rochester; Proctor Electric Co., Philadelphia; Shobe, Inc., Memphis; and the Philadelphia Trade Relations Council.



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